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ABSTRACT

This report examines matters about which people will need to be knowledgeable in the 1980s to be intelligent consumers and effective homemakers. Its assumptions are based on an examination of work in the field of home economics and related areas of future issues relative to families, publications dealing with social trends and technological developments, and selected recent studies related to the substantive areas of home economics. It contains discussions of the following seven substantive areas of consumer and homemaking education: family life, child care and development, consumer education, home management, nutrition and food, textiles and clothing, and housing and home furnishings. Covered in each of these discussions are newer knowledge in the field (research and theory); relevant social changes, including changes in family life; related technological developments; and predictions for the future related to given course content areas. A section on the social and educational context of consumer and homemaking education includes considerations in areas not covered elsewhere in the paper and attempts to bring together relevant information concerned with social conditions, projections, needs, and the educational program setting. (MN)

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WHAT PEOPLE WILL NEED TO KNOW IN THE 80s AND BEYOND

To Be Intelligent Consumers and Effective Homemakers

(Content for Consumer and Homemaking Education)

Elizabeth J. Simpson, Dean

School of Family Resources and Consumer Sciences

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February, 1981

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WHAT PEOPLE WILL NEED TO KNOW

IN THE 80s AND BEYOND

to be Intelligent Consumers
and Effective Homemakers

(Content for Consumer and Homemaking Education)

TABLE OF CONTENTS

	Page
Introduction	1
The Source of Authority in Building the Consumer and Homemaking Education Program	2
The Social Function of Consumer and Homemaking Education	2
Criteria for Content	5
Organization of This Paper	5
Family Life	6
Status of Family Life	6
Family Structure	8
Working Women	13
Changing Sex Roles	17
Empty Nests	18
Divorce, Facts and Effects	19
Adolescent Sexuality	20
Teenage Pregnancy	22
Teenage Fathers	27
Abortion	28
Adoption	28
Teenage Suicides	29
Violence and Child Neglect in Families	29
The Aging Member of the Family	35
Alcohol and Drug Abuse	37
Smoking as a Family Problem	39
Narcissism	41
Economic Factors and the Family	42
Work and the Home	43
Ethnic Minority Families	44
The Economic Value of Homemaking	46
Implications for Consumer and Homemaking Education	48
Child Care and Development	52
Parent Education and Child Development	52
Child Care	53
What Kinds of Preschool Programs Are Most Effective?	57
Children and TV	59
Some Critical Issues in Child Care and Development	60
Implications for Consumer and Homemaking Education	63

	Page
Consumer Education	64
The Field of Consumer Education	64
Consumer Elements by Consumer Life Cycle Stage	72
The Prosummer Concept	77
Use of Generic Products	80
Coupons and Refunds	81
Changing Consumer Values	83
Need for Emphasis on New Political and Economic Realities in Consumer Education	84
The Consumer and Energy Shortages	84
Electronic Fund Transfers	90
Home Computer Use	91
The Ethics of Consumption	91
Implications for Consumer and Homemaking Education	95
Home Management	100
Managerial Concepts	100
Time Use in Families	101
Managing the Resource of Money	106
Computers: The Next Major Home Appliance?	108
Managing in the 80's and Beyond	108
Implications for Consumer and Homemaking Education	109
Nutrition and Food	111
Recommended Dietary Allowances	112
Dietary Goals and Guidelines	116
Fiber	121
Eating Disorders	122
Shifts in Food Consumption Patterns	126
Coupons and Refunds	129
Processing and Home Preparation of Food	129
Developments in Food Sources	130
Moral and Political Aspects of Food	134
Implications for Consumer and Homemaking Education	138
Textiles and Clothing	141
Textiles: Developments and Projections	141
Man-Made Fibers	144
Comfort of Textiles and Clothing	146
Regulatory Developments	150
Consumer Responsibilities With Respect to Care Labeling and Fabric Flammability	151
Textiles and Clothing and Energy Conservation	154
Fiber and Textile Arts	156
Implications for Consumer and Homemaking Education	156

	Page
Housing and Home Furnishings	158
Housing Projections	159
Housing and Family Health	159
Housing and Relationships	169
Housing and the Child's Needs	176
Housing the Elderly	178
The Home as a Learning Center	182
Color Studies Having Implications for the Home Setting	185
Energy Conservation and Housing	187
Solar Heating for Homes	189
Underground Housing	191
Buying a Home: General Guidelines	192
Environment for Family Living: The Next Twenty Years	193
Implications for Consumer and Homemaking Education	194
The Social and Educational Context of Consumer and Homemaking Education	196
The Social Context	196
The Educational Context	198
Summary	201
Family Life	201
Child Care and Development	203
Consumer Education	205
Home Management	208
Nutrition and Food	210
Textiles and Clothing	214
Housing and Home Furnishings	217
Conclusion	222

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INTRODUCTION

> *"Home economics — is an applied field of study, built upon many disciplines for the purpose of achieving and maintaining the welfare or well-being of homes and family life in an everchanging society. Its uniqueness as a field of study lies in its integrative power, because it utilizes basic principles from many disciplines and applies them as a composite in solving the problems faced by individuals and families in day-to-day living." (Selma F. Lippeatt and Helen I. Brown, Focus and Promise of Home Economics, The MacMillan Co., New York, 1965, p. 4.)*

The purpose of this paper is to examine (1) the work in the field of home economics and related areas on future issues related to families, (2) the publications of "futurists" on social trends, especially those related to the family, and technological developments underway and anticipated, and (3) selected recent studies related to the substantive areas of home economics. From a synthesis of knowledge gained from these sources, conclusions regarding what people will need to know in the 80s and beyond to be intelligent consumers and effective homemakers have been drawn — conclusions which also serve to define Consumer and Homemaking Education content.

In considering meaning drawn from social trends and predictions, technological developments, and research data, it is important to keep in mind that the beliefs and values held by the individual drawing such meaning are reflected in his or her statements. That is, the philosophical orientation of the writer of this paper leads her to certain conclusions. Another, viewing from a different philosophical perspective, might reach other conclusions.

Therefore, in order to make apparent certain basic ideas which guided the

writer in reaching her conclusions about the meaning of the collected information for Consumer and Homemaking Education content, the following brief discussion of these ideas is presented.

The Source of Authority in Building the Consumer and Homemaking Education Program

There is legal authority for what is included in the Consumer and Homemaking Education program in federal and state legislation, but "the educator must consider the question of his moral authority as well as the question of his legal authority."[1] Derived from the basic intellectual and moral commitments of American society, such moral authority lies in the democratic ideal.[2] This ideal includes the concepts of decisions based on the informed judgments of the people, responsibility of the people for self and others, and fair treatment of and respect for the individual. The democratic ideal as the source of authority in building an education program has implication for both content and methodology. Both should be consistent with and supportive of the democratic ideal.

The Social Function of Consumer and Homemaking Education

The ultimate goal of the Consumer and Homemaking Education program is to improve the quality of life for families and their individual members — to strengthen the family as one of our basic social institutions. As the representatives of the three major professional organizations of home economics education[3] forming the Professional Coalition for Home Economics Education put it:

> "The family, or household, is a major institution of society for socializing the young. In addition to its educational and pro-

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[1] Smith, B. Othanel; William O. Stanley; and Harlan J. Shores, Jr., Fundamentals of Curriculum Development, World Book Co., Yonkers-on-Hudson, New York, 1950, p. 136.

[2] Ibid., p. 142.

[3] The American Home Economics Association, the home economics section of the American Vocational Association, and the Home Economics Education Association, NEA.

tective function, the family system interacts with the other major institutions of society. If the family system does not function, then other systems such as formal education and the business society will break down. Problems such as malnutrition, child abuse, consumer fraud, teenage pregnancy, energy waste, and environmental pollution, which are among our nation's most intense social concerns, all bear on the family.

"The habits and values of persons related to these matters generally are 'caught' in the home and family context. But, economic, technological, political, and social forces have resulted in changes that have increased the complexity of choice and the burden upon families to make informed choices. The family system must be supported in its role for sustaining our society.

"To be fully human, no one can be exempted from interdependence with other persons. Each person needs competencies in interpersonal skills and resource management related to home and family in order to live a satisfying life regardless of the living style chose. . . the competencies and attitudes necessary for homemaker roles are learned, and these can and should be learned by both men and women. The increasing complexity and changing character of homemaker roles and tasks seem to require that *organized opportunities* for learning these be enhanced and expanded."[4]

Home economics education is the only field of study that focuses on total family well-being. Through synthesizing concepts from a variety of areas of family concern and study such as human development, family relationships, child care and guidance, home management, consumer decisions, housing and home furnishings, foods and nutrition, and textiles and clothing, home economists address family and related problems and concerns in a more effective manner than would be possible through a fragmented approach.

In carrying out its function of supporting the best interests of the family as a basic social institution impacting on and impacted upon by all other social institutions, home economics education should not simply react to what is happening in families and in the larger society. It should lead, should determine what it stands for, should involve itself in promoting family well-being and the kind of family life that supports the full and best development of its members rather than simply reacting to family and social ills with remedies and band-aid

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[4] Position Paper, A United Front on Vocational Home Economics, Statement from the professional coalition, American Vocational Journal, May, 1979, p. 52.

treatments.

It is the social responsibility of home economics education to lead in a continuous re-examination of those social ideals and beliefs that relate to the family. Such examination is forced upon us by the rapid changes in our modern world, most of which impinge on the family. Hiding our heads in the sand and depending on old answers will not suffice, although, to be certain, traditionally held values and beliefs must be evaluated and *considered* as appropriate response along with others.

In The Third Wave, Alvin Toffler states that, "Humanity. . . faces the deepest social upheaval and creative restructuring of all time."[5] His view is an optimistic one which recognizes the turmoil in society, including family life, today, but is more than merely hopeful about its future. He writes:

> "A new civilization is emerging in our lives. . . .This new civilization brings with it new family styles; changed ways of working, loving, living; a new economy; new political conflicts; and beyond all this an altered consciousness as well. Pieces of this new civilization exist today. Millions are already attuning their lives to the rhythms of tomorrow."[6]

Changes in all facets of society affect the family, hence have implications for education focused on the family. Therefore, it is imperative that teachers in Consumer and Homemaking Education programs be informed about these changes and continuously engage in analysis of the changes for implications for their teaching, keeping in mind that the changes are understood better when viewed in larger social contexts and in their relationship to other changes — and constants[a] —

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[5] Toffler, Alvin, The Third Wave, William Morrow and Co., Inc., New York, 1980, p. 26.

[6] Ibid., p. 25.

[a] Footnote: In a paper on "Legislation for Consumer and Homemaking Education: Social Implications," p. 86-88, the author discusses constants affecting the Home Economics Program: belief in the importance of family life; the family function of preparing children to establish their own homes and families and thus providing for the continuation of family life; family needs for food, shelter, clothing; basic human needs; the need for creative expression; the character of the home as a collector and synthesizer of material and spiritual goods; and to live together with human dignity and decency as a goal with which the whole world is concerned.

and that the responsibility for response goes beyond reaction!

Criteria for Content

In determining what content to include in the Consumer and Homemaking Education program — what people will need to know in the 80s and beyond to be intelligent consumers and effective homemakers — the following criteria are suggested:

- contribute to solution of the perennial problems of families, for example, providing for the optimum development of children
- based on awareness of current conditions in family life and in society, as well as what is projected for future
- meet needs of students at level where program is offered
- based on reliable and current information in the content areas
- applicable in many situations

Organization of This Paper

The paper is divided into sections, as follows: Introduction; Family Life; Child Care and Development; Consumer Education; Home Management; Nutrition and Food; Textiles and Clothing; Housing and Home Furnishings; The Social and Educational Context of Consumer and Homemaking Education; and Summary.

For each substantive area of Consumer and Homemaking Education, a discussion which includes the following is presented:

- newer knowledge in the field (research and theory)
- relevant social changes, including changes in family life
- related technological developments, and
- predictions for the future related to the content area

This discussion is followed by a statement of implications of the information for Consumer and Homemaking Education programs.

The section on the Social and Educational Context of Consumer and Homemaking Education includes considerations in these areas not covered elsewhere in the paper and attempts to bring together relevant information concerned with social conditions, projections, and needs and the educational setting of the program. The meaning of these considerations and information is explored for implications for the total program in Consumer and Homemaking Education.

FAMILY LIFE

Of particular interest in considering what should be taught in Consumer and Homemaking Education in the 80's and beyond are trends in family life, projections for the future, and research in the various aspects of family life.

Status of Family Life

The American family is a continuing, but changing, social unit. Major functions of today's family are concerned with the growth and development of its members through affection, socialization, and cultural interpretation. Because of lessened production in the home and changing structure, there has been some tendency in recent years to underestimate the continuing significance of the family as a basic social unit.

Novak underlined the importance of the family in an article in Harper's when he said:

> "A people whose marriages and families are weak can have no solid institutions.
> . . . . Every avenue of research today leads to the family. Do we study educational achievement? nutrition? the development of stable and creative personalities? resistance to delinquency and violence? favorable economic attitudes and skills? unemployment? sex-role identification? political affiliation? intellectual and artistic aspiration? religious seriousness? relations to authority and to dissent? In all these instances, family life is fundamental."[7]

Some have said that the American family is dying. In his most recent book, The Third Wave, Toffler writes:

> ". . . . what we are witnessing is not the death of the family as such, but the final fracture of the Second Wave[b] family system in which all families were supposed to emulate the idealized nuclear model, and the emergence in its place of a diversity of family forms. Just as we are de-massifying our media and our production, we are

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[7] Novak, Michael, "The Family Out of Favor," Harper's, April, 1976, p. 43.

[b] Footnote: Second Wave in Toffler's terms, refers to an industrial phase of civilization which he sees giving way to a "Third Wave."

de-massifying the family system in the transition to a Third Wave[c] civilization."[8]

Skolnick, in an introductory textbook on families states that:

> "The main fact about family life today is that formerly sanctified beliefs and practices have come to be openly challenged. Everything that used to be taken for granted as part of human nature - definitions of masculinity and femininity, the necessity of marriage, the desirability of having children, the rights and obligations of children and parents to each other - is open to question and debate.
>
> "What we are witnessing may not be so much the breakdown of the family as an institution, as the destruction of myths and assumptions about family living that were never true in the first place. . . "[9]

According to a recent national poll conducted for the White House Conference on Families, nearly half of the respondents felt that family life has deteriorated and expressed worry about the future. However, most respondents considered family life the most important part of their lives. Those interviewed indicated that the three most important problems facing families are: high cost of living (81 percent), energy cost (53 percent), and government policies (23 percent). The things they considered most harmful to families were: alcohol and drugs (60 percent), decline in religious/moral values (40 percent), poverty (29 percent), over-use of prescription drugs (23 percent), teen promiscuity (20 percent) and homosexuality (13 percent).[10]

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[c] Footnote: The Third Wave Civilization, according to Toffler "brings with it a genuinely new way of life based on diversified, renewable energy sources; on methods of production that make most factory assembly lines obsolete; on new, nonnuclear families; on a novel institution that might be called the 'electronic cottage;' and on radically changed schools and corporations of the future. The emergent civilization writes a new code of behavior for us and carries us beyond standardization, synchronization, and controlization, beyond the concentration of energy, money and power." (Toffler, The Third Wave, pp. 26-27)

[8] Toffler, Alvin, The Third Wave, William Morrow and Co., Inc., New York, 1980, p. 227

[9] Skolnick, A., The Intimate Environment: Exploring Marriage and the Family. Little, Brown and Co., Inc., Boston, 197[illegible] eface.

[10] "Most Americans Place Top Priority on Family," Wisconsin State Journal, June 3, 1980.

Family Structure

Glick, Senior Demographer of the U.S. Bureau of Census, reports in The Washington Cofo Memo that:

> "The preponderant majority of people still live in households that are maintained by a nuclear family. Specifically, close to 7 of every 8 persons in the noninstitutional population of the United States in 1978 were members of nuclear family households.
>
> - 76 percent were in married-couple households; and
> - 10 percent were in one-parent households; thus,
> - 86 percent were in nuclear households.
> - 8 percent were living alone as one-person households;
> - 1 percent were in households of unmarried couples; and
> - 5 percent were in various other living arrangements."[11]

In discussing the incidence of one-parent households, Glick states that:

> "Persons living in one-parent households represent a relatively small proportion of the population, partly because their households include only one parent instead of the traditional two, and because only 54 percent of all families have any 'own' children under 18 years of age in the household; most of the rest formerly had children in the house or will do so sometime in the future. As a matter of fact, 19 percent of the 63 million noninstitutional children in 1978 were living with only one parent.
>
> - 78 percent of all children under 18 lived with two parents;
> - 19 percent lived with one parent; and
> - 3 percent lived with neither parent, but usually with relatives."[12]

In a special section on The American Family in the June 16, 1980 U.S. News and World Report, the editors state that:

> "The 'traditional' American family . . . . . now is in a minority. A scant 13 percent of the nation's families include a *working father, stay-at-home mother and one or more children.*"[13]

Although the husband-wife team as head of the family is most common, there has been an increase in the proportion of households headed by females. In 1975,

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[11] Glick, Paul C., "Future American Families," The Washington Cofo Memo, A Publication of the Coalition of Family Organizations, Vol. II, No. 3, Summer/Fall, 1979, p. 3.

[12] Ibid., p. 4.

[13] "The American Family, Bent - But Not Broken," U.S. News and World Report, June 16, 1980, p. 48.

13 percent of all U.S. families were headed by women.[14] Bane estimates that between 35 and 46 percent of the children who grew up in the 1970s will live in a single-parent family by the time they reach 18 years of age.[15] According to a 1976 report on America's Children, children in single-parent families headed by a woman have a fifty-fifty chance of living in poverty.[16]

Between 1970 and 1980, the number of children under 18 living with divorced fathers *jumped by 136 percent.* Close to 500,000 divorced U.S. fathers are now rearing children without the help of a wife.[17] In fact, there appears to be a beginning of a fathers' rights and responsibilities movement. Organizations of single fathers are presently coming to light in some parts of the country--for example, a group called Divorced Fathers for Action and Justice in Waltham, Massachusetts.[18] And, a landmark case decided by the U.S. Supreme Court in 1972 established the principle that a concerned and interested unwed father has constitutionally protected parental rights.[19]

Additional data about divorced parents and their children are of interest. By 1990, it is projected that eleven percent of children under 18 will be living with a divorced parent, as against 7.6 percent in 1978. In 1978, black children under 18 were a little more likely than white children to be living with a divorced parent - ten percent versus eight percent. However, they were far more likely to be living with a lone parent who was not divorced, 32 percent versus ten percent.

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[14] U.S. Bureau of the Census, Current Population Reports: Special Studies, Series p. 23, No. 58, A Statistical Portrait of Women in the United States, Washington, D.C., U.S. Government Printing Office, 1975c.

[15] Bane, M.J., "Marital Disruption and the Lives of Children," Journal of Social Issues, Winter, 1976, pp. 103-117.

[16] America's Children - A Bicentennial Assessment, National Council of Organizations for Children and Youth, Washington, D.C., 1976.

[17] "Custody: Kramer vs. Kramer," Time, February, 1980, p. 77.

[18] NBC News, Now (special broadcast), June, 30, 1977.

[19] Governor's Commission on the Status of Women, Wisconsin Women and the Law, 2nd Ed., The University of Wisconsin Extension, Madison, Wisconsin, 1977, p. 20.

Black children were twice as likely to be living with a widowed parent, four percent as against two percent. They were three times as likely to be with a separated parent, 14.5 percent versus five percent, and four times as likely to be living with a nevermarried parent, 13 percent as against three percent.20

Continuing high rates of divorce and remarriage mean that family structures are frequently complicated. His children, her children, their children; more than one set of parents and grandparents - tensions in families tend to increase as the structure becomes more complex. All members of the family are affected.

A living arrangement that has gained in popularity is what a popular magazine recently referred to as the "single family" - meaning the "household" consisting of one person living alone. Many young people live alone today; Glick reports that this is related to the fact that young adults in the United States have increasingly been postponing entrance into marriage.[21] Of those who married in 1977, the median age at marriage for men was 24.0 and for women 21.6, in contrast to 22.8 and 20.3 respectively in 1960.[22]

The number of young adults living informally as unmarried couples of opposite sex is increasing at a rapid rate; since 1970, the number has more than doubled - from 530,000 couples in 1970 to 1,137,000 in 1978. The future trend in the proportion of unmarried couples who live together seems likely *not* to slow down.[23] However, such an arrangement seems, in most cases to be transient - not a substitute for marriage.

The living arrangements of the increasing number of older Americans are of

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[20] Glick, Paul C., "Children of Divorced Parents in Demographic Perspective," Journal of Social Issues, Fall issue, 1979, pp. 170-181.

[21] Glick, "Future American Families," op. cit., p. 4.

[22] U.S. Bureau of the Census, 1978.

[23] Glick, "Future American Families," op. cit., p. 20.

interest to those concerned with family life educational programs. Every day, the 65-plus population increases by 1,500 persons; if the birth and death rates stay the same, one of every four Americans will be over age 65 in the year 2,020.[24] In 1978, three in five older Americans (median age 72) lived alone; 65 percent of widowers lived alone and 65 percent of widows. Sixty percent of other unmarried men lived alone compared to 56 percent of other unmarried women.[25] Increased numbers of the elderly who live with others are living with non-relatives.[26] According to a 1974 report, among older men sharing their living quarters with non-relatives only, one in every five shared it with a female partner; it is likely that a substantial proportion of widowed persons living in this manner did so in order to avoid losing survivor benefits through remarriage.[27]

Another significant factor in the structure of the family today is the low birth rate. According to Glick, "Most demographers do not expect the birth rate to rise very significantly in the next decade or two, even if a majority of the women who have been postpoining marriage and childbearing should decide to have one or two children before they pass through their late twenties or early thirties."[28]

Some couples opt for a childfree alternative. Current research suggests that childfree couples are similar to couples who have children in life satisfaction,

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[24] Lynch, Dianne, "70's Bring Visibility to Elderly," Wisconsin State Journal, January 16, 1980, Section 1, p. 6.

[25] Tissue, Thomas, "Low Income Widows and Other Aged Singles," Social Security Bulletin, December, 1979, pp. 3-10.

[26] Extension Home Economics in the 80's, Task Force of Extension Committee on Organizations and Policy, Report published by the University of Kentucky, College of Agriculture, Cooperative Extension Service, Lexington, Kentucky, 1980, p. 8.

[27] Quoted from U.S. Bureau of the Census figures, 1974, in Glick, Paul C., Some Recent Changes in American Families, Current Population Reports, U.S. Department of Commerce, Bureau of the Census, Washington, D.C., p. 13.

[28] Glick, "Future American Families," op. cit.

maturity, and self-esteem.[29] Whether the number of couples who choose the child-free lifestyle will increase significantly is unknown. Silka and Kiesler[30] hypothesize that the key seems to be the availability of rewarding career opportunities for young women. If low-status, low paying jobs remain the predominant employment opportunity, motherhood and full-time homemaking will continue to be viewed as a rewarding alternative.

Hawke and Knox[31] also point out that it is likely that the one-child family will also become more acceptable. Current concerns about inflation, population growth, and the wife's career will influence young couples to question whether the two-child family is indeed "ideal." Also, as more parents examine the myths about only children, fewer couples will have a second child "to save the first."

Over the next two decades, "test tube" conception is expected to increase. Steptoe and Edwards,[32] British physicians who pioneered in conception outside the human body, have predicted an increase in the use of this procedure by the estimated two million American couples whose infertility stems from problems related to blocked or damaged fallopian tubes. Yarrow[33] reports that 85 percent of American women believe the test tube method of conception should be made available to married couples unable to conceive naturally.

Although they are in a minority, other forms of family life, so called "alternative family forms" appear to function in meeting the felt needs of their members. These include homosexual and communal family arrangements.

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[29] Silka, L. and S. Kiesler, "Couples Who Choose to Remain Childless," Family Planning Perspectives, 9, 1977, p. 22.

[30] Ibid., pp. 23-24.

[31] Hawke, S., and D. Knox, One Child by Choice, Prentice-Hall, Englewood Cliffs, New Jersey, 1977, 223 pp.

[32] Know, D., "Trends in Marriage and the Family--the 1980's," Family Relations, Volume 29, No. 2, April, 1980, p. 148.

[33] Yarrow, L., "Test-Tube Babies: For or Against?" Parent's Magazine, November, 1978, p. 82.

Recent research on "family boundaries" in family studies has focused attention on the question of what persons constitute a family. Physical presence or absence may be less important than psychological presence or absence. This whole area has significant implications for those concerned with education for family life.

Characteristic of family life today and in the foreseeable future is diversity of form and more varied individual roles of family members. The diversity brings with it many options and increased need for education in decision making and the responsibilities of family life.

Working Women

In the fall of 1979, Roper conducted the fourth American Women's Opinion Poll, commissioned by Virginia Slims and involving a representative cross section of 3,000 American women and 1,000 men aged 18 and up. Shirley Wilkins, president of the Roper organization reports that, "Six years ago, a majority of women saw homemaking and raising children as their primary function. Today, a majority seem to be more interested in combining careers and family."[34]

A first American Women's Opinion Poll, conducted by Louis Harris in 1970 showed: 71 percent of the women respondents not employed, 11 percent employed part time, and 18 percent employed full time. The 1979 results were: 52 percent not employed, 12 percent employed part time, and 35 percent employed full time.[35]

Major finding of the opinion poll were as follows:

- Only 42 percent of the respondents in 1979 wanted a traditional life with the husband assuming responsibility for providing for the family and the wife running the house and taking care of the children. Fifty-two percent wanted to share work, home, and child-rearing responsibilities with their husbands. "Almost half the women (46 percent) and nearly two-thirds (63 percent) of those who work pre-

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[34] "Working Woman, New Survey of the 70's: Women Work More, Better, and Enjoy," Working Woman, July, 1980, p. 28.

[35] Ibid., p. 27.

fer having a job to staying at home."[36]

- The majority of the working women reported that they have an equal chance with men for salaries, responsibility, and promotion but only a third believe they have an equal chance at becoming an executive.[37]

- Nearly two-thirds of both the men and the women indicated that it doesn't make any difference to them whether they work for a man or a women.[38]

- The researchers concluded that, "Women take their jobs more seriously today than they did a decade ago, and most working women are 'perfectly comfortable' with the idea of earning more than their husbands do." In the 1970 survey, 39 percent of the women saw their jobs as lifetime careers, as compared with 45 percent in 1979.[39]

- Sixty-three percent of the men liked their wives bringing home checks larger than their own; 59 percent of the women responded in this way.[40]

- Two out of five men and women reported that they would not lose respect for a stay-at-home husband.[41]

- The report found that "A majority of both sexes favor the Equal Rights Amendment, though the numbers, especially for men, have fallen since the mid-70's, virtually the only backward step reported in the poll."[42]

- Nearly two-thirds of working women and over half the non-working women and men felt that both boys and girls should be taught to mend their clothes, and the percentages who favor having both sexes work at other household chores is much higher.[43]

- Of the 1979 respondents, 62 percent favored divorce as a solution for an unsuccessful marriage -- as compared with 52 percent in 1970.[44]

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[36] Ibid., p. 28.

[37] Ibid., p. 28.

[38] Ibid., p. 28.

[39] Ibid., p. 28-29.

[40] Ibid., p. 29.

[41] Ibid., p. 29.

[42] Ibid., p. 29.

[43] Ibid., p. 29.

[44] Ibid., p. 29.

According to a May, 1980, report in Newsweek,[45] 51 percent of adult women are working at remunerative jobs. For the first time working wives outnumber housewives. Over 42 percent are the sole support of families. But the average woman worker earns only 59 percent of what the average man earns.

In 1979, according to the Bureau of Labor Statistics, nearly 62 percent of women with school-age children were working outside the home. Over 45 percent of mothers with pre-school children also had jobs.[46]

Teen Times, a publication of the Future Homemakers of America, in its March/April, 1980 issue presented facts about women (and men) in the paid work force:[47]

- In half of all U.S. marriages, both husband and wife work for pay outside the home.
- Of those women who work for pay, 68 percent work to support themselves or their families, or to add to the income of husbands who earn $9,000 or less a year.
- Four out of ten young women now in high school will become heads of families and will be the sole support of themselves and their children.
- The average young woman today can expect to work outside her home for pay 40 years if she is single; 30 years if she marries but has no children; and 15 to 25 years if she has children.
- Fourteen percent of all employed women work in clerical jobs, compared to only seven percent of all employed men.
- Twenty percent of all men in the paid work force are skilled crafts workers (machinists, bricklayers, etc.), compared to less than one percent of all employed women.
- Eighteen percent of employed women work as service workers (nurses' aides, maids, etc.), compared to only nine percent of employed men.

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[45] "The Superwoman Squeeze," Newsweek, May 19, 1980, pp. 72-79

[46] Stencel, Sandra, "Mothers Find Working Is a Way of Life," Wisconsin State Journal, Monday, July 7, 1980, Section 3, p.

[47] "Men and Women in the Paid Work Force," Teen Times, March/April, 1980, p. 5.

The Subtle Revolution, Women at Work is a 1979 publication[48] which deals with the movement of women into the labor force; their employment in relation to marriage, their children, and the family; and the responses of the federal income tax system and the social security system. Teachers of Vocational Consumer and Homemaking Education and Home Economics Related Occupational programs will find it particularly helpful.

Of special interest is a section on what happens to the children of working mothers. According to the authors, it is generally agreed that "a child's attachment to its mother and the child's general development do not seem to be impaired by the mother's employment."[49] However, several interesting differences have appeared when children of working women have been compared with children of non-working women:

- Children of mothers who work outside the home do more housework than do children of full-time homemakers.[50]
- Daughters of working women tend to have less traditional views of marriage and sex roles than do daughters of full-time homemakers.[51]
- Daughters of working women view women as more competent than do daughters of non-working women, according to one study.[52]

The problem of day care for children is critical for the working mother of young children. This problem is discussed in the section on Child Development.

Although women have increased their labor force participation, sought more responsible positions, and demonstrated commitment to their jobs, their average

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[48] Smith, Ralph E., Editor, The Subtle Revolution, The Urban Institute, Washington, D.C., 1979, 279 pp.

[49] Ibid., p. 146.

[50] Ibid., p. 147.

[51] Ibid., p. 148.

[52] Ibid., p. 149.

earnings have remained far below those of men. "Regardless of the criterion chosen - age, education, or prior work experience - women in each (occupational) category earn far less than men with the same characteristics, even when they work the same number of hours."[53]

Certainly, the answers are not all in with respect to the outside employment of women and the effects on the family and on social and economic conditions. For the home economist, among the consequences of particular interest is the phenomenon of changing sex roles.

Changing Sex Roles

Questioning of traditional views of male and female roles is one of the dramatic social changes of the past two decades. The traditional view is that males tend to be characterized by "instrumental" behaviors such as financial support and contact with the world external to the family and the females are more characterized by nuturant and "expressive" behaviors. However, as women have moved into the world of work outside the home in large numbers and men have begun to express more interest in the fathering role and in their rights and responsibilities as parents, notions of male and female roles have changed.[54]

The American Women's Opinion Poll of 1979, conducted by Roper[55] found a decrease in sex-stereotyping of household chores. Approximately two-thirds of working women expressed the belief that both boys and girls should be taught to mend their clothes. This was up from 40 percent in 1974. The proportion who favored having both sexes work at other household chores was far higher.

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[53] Ibid., p. 32.

[54] Parsons, T. and Boles, R. Family, Socialization and Interaction Process, The Free Press, Clencoe, Illinois, 1955, p. 23.

[55] "Working Women, New Survey of the 70's: Women Work More, Better, and Enjoy," op. cit., p. 29.

"Empty Nests"

Bell, in an unpublished report to the faculty of the School of Family Resources and Consumer Sciences, University of Wisconsin-Madison, states that:

> 'The term "empty nest' refers to that stage in family growth patterns where the launching of children has been completed. This period involves adjustments for the remaining family members in terms of time and goals.
>
> "In the United States today, women whose children have been launched into independence have increasingly more options open and a greater number of opportunities and choices to pursue. The situation where women who had been primarily involved in family responsibilities are suddenly 'free' of that occupation has been likened to retirement and the related identity crisis which historically, mostly males experienced.
>
> "Among the viable alternatives for women whose family responsibilities have diminished are reentry into the labor force and continuing education."[56]

The so-called "displaced homemaker" is at the empty nest stage of family life. She (in very rare instances, he) has been defined as a person who:

- has worked in the home for a substantial number of years providing unpaid household services for family members,
- is not gainfully employed,
- has difficulty in obtaining employment, and
- was dependent upon the income of another family member but is no longer supported by such income, or was dependent on federal assistance but is no longer eligible for such assistance.

These are persons who, in their middle years and having fulfilled the role of homemaker, find themselves displaced because of dissolution of marriage, death of spouse, or other loss of family income. As a consequence, displaced homemakers have a greatly reduced income, a high rate of unemployment due to age, a lack of paid work experience and limited opportunities to collect funds of assistance from social security, unemployment compensation, medicaid and other health insurance benefits,

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[56] Bell, Colleen S., Current Status of American Families and Related Social Issues: An Overview, unpublished paper, School of Family Resources and Consumer Sciences, University of Wisconsin-Madison, 1979-80, p. 20.

or pension plans of the spouse.[57]

Some would broaden the definition of the displaced homemaker to include those women whose children have been launched and who may continue to have the financial support of a husband but find that their chief occupational role, that of mother actively caring for the needs of children, no longer exists.

Recently, there have appeared a spate of articles which suggest that some nests of parents of mature years are not empty. An article in the April 7, 1980 Newsweek reported that divorce and lack of day care, inflation, and problems of obtaining suitable housing are pushing more young adults to live with middle-aged parents who, generally speaking, have mixed feelings about the whole thing![58]

Divorce, Facts and Effects

In 1975, of all U.S. females aged 18 and older, 5.3 percent were divorced; 3.7 percent of all males 18 and over were divorced.[59] The national divorce rate (per 1,000 population) was 2.2 in 1960, 3.5 in 1970, 4.6 in 1974 and 4.8 in 1975.[60] Presently, one out of two marriages ends in divorce. Divorce rates are higher for blacks than for whites, for those of lower educational level, and for those in the earlier years of marriage.

In the past, people tended to stay together for religious and economic reasons or because they lacked viable alternatives. People expect happiness in marriage and, today, when they do not find it, they are more likely to seek divorce.

Divorce mediation services to allow separating spouses to determine their own divorce settlements through negotiations moderated by professional mediators are

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[57] House Bill 1822, 80th General Assembly, State of Illinois, 1977 and 1978, Displaced Homemaker Assistance Act, p. 1.

[58] "Flying Back to the Nest," Newsweek, April 7, 1980, p. 86.

[59] U.S. Bureau of the Census, Statistical abstract of the United States 1976 (97th ed.) Washington, D.C. U.S. Government Printing Office, 1976.

[60] Ibid., p. xiv

relatively new. These services cost a couple about $200 to $700 with another $200 to $300 for an attorney to put the mediated agreement in legal form. The services are provided by the American Arbitration Association, court systems around the country, and private groups.[61]

The effects of divorce on children were discussed in a recent issue of Newsweek.[62] Included was a report of a study by Virginia psychologist E. Mavis Hetherington. Seventy-two divorced middle-class families were included in the study. She found that sons in these families were harder hit by the divorce than were daughters. More is expected of the sons, she explained, and they receive far less support from their mothers, teachers and peers. The boy may then become destructive and alienate others. On the other hand, according to Hetherington, a little girl vents her sadness by crying - literally - for attention, which results in her receiving help.

The Newsweek article concluded with the statement that:

> "For better or worse, divorce continues to split families at an alarming rate. The number of children involved in divorce has tripled in the last twenty years. And though parents, children and professionals are struggling to deal with such new domestic realities as single-parent families, there are no longstanding precedents, no established role models to draw from."[63]

Adolescent Sexuality

The following data offer additional support for family life and sex education, as well as education for teenage parenting:

A nationwide study at Johns Hopkins in 1971 found that 28 percent of women 15-19 years of age had some coital experience and that over half of these women

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[61] Haskett, Mary Ellen, "Divorce Mediation: Road to a Separate Peace," The Capital Times, Madison, Wisconsin, P.M. Section, July 9, 1980, pp. 39 and 41.

[62] "The Children of Divorce," Newsweek, February 11, 1980, pp. 58-66.

[63] Ibid., p. 63.

failed to use any contraceptive during the most recent intercourse. Eighty-four percent of these women did not want to become pregnant. Only 20 percent of these sexually active teenage women use any birth control consistently and of the 80 percent who do not, eight out of ten think that they cannot become pregnant. Thirty percent of teenage women engaging in premarital intercourse do become pregnant.[64]

Harper, in the Wisconsin State Journal, reported that "Seventy-three percent of all Wisconsin 16-year-old brides are pregnant at their weddings, along with 55 percent of the 17-year-olds and 26 percent of the 18-year-olds."[65] Such findings are not unique to the state of Wisconsin.

According to Califano,[66] a past United States Secretary of Health, Education, and Welfare:

> "Of the approximately 21 million adolescents ages 15-19, more than 11 million have had sexual intercourse at least once. Nearly 2 million of the eight million young people ages 13 and 14 fall into this category. This represents a considerable increase in adolescent sexual activity. In 1970, only 30 percent of young people age 15 to 19 had experienced sexual intercourse; by 1976, the proportion had grown to 41 percent. Over the past two decades, the incidence of sexually transmitted diseases had increased dramatically:
> - "There has been a nearly 500 percent increase in total gonorrhea cases reported annually; from 45,000 in 1956 to 250,000 in 1974 for young people ages 15 to 19.
> - "Syphilis among this population has increased from 1,163 cases in 1956 to nearly 4,000 in 1974.
> - "Even among the very youngest adolescents - those under 15 - gonorrhea cases have increased from 3,600 to 11,500 during this time. And young girls account for 75 percent of these cases.
> - "These reported figures are probably low. Only one-third of V.D. cases are ever reported to the State Health Departments; many victims go untreated. And,....., the consequences of such diseases can be severe."

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[64] Shipp, D.A., "Advocating for Responsible Parenthood," Paper presented at the 5th annual Wisconsin Alliance Concerned With Teenage Parents Workshop, Madison, Wisconsin, October 14, 1976.

[65] Harper, T., "Unwed Mothers Cost State $20 Million," Wisconsin State Journal, June 21, 1977, Section 4, p. 1.

[66] Califano, Joseph A., Jr., "Adolescents, Their Needs and Problems," a speech delivered to the Institute of Medicine, National Academy of Sciences, Washington, D.C., June 16, 1978, p. 2.

Teenage Pregnancy

Adolescent pregnancy is a serious problem in the United States, which has the highest teenage birthrate among industrialized nations.[67] From a report prepared by Judith O. Hooper, Professor of Family Life Education, University of Wisconsin-Madison, the following facts are given.[68]

Teenage Pregnancy -- An Overview

Births to Teenagers

- Teenagers bear nearly one in five babies born in the United States.
- Two-fifths of births to teenagers are out-of-wedlock and account for half the total out-of-wedlock births in the country.
- Three in ten women ages 20 in 1975 had borne at least one child.

Pregnancy

- Each year, more than one million teenagers become pregnant.
- One in six teenage women who have premarital sex becomes pregnant.
- Six in ten teenage pregnancies end in live births, three in ten are terminated by abortion, and one in ten ends in miscarriage.
- About 85 percent of all teenage mothers keep their babies.
- Teenagers account for one-third of all legal abortions in the United States.

Health Risks

- The death rate from complications of pregnancy and childbirth is 13 percent higher for 15 to 19-year-olds and 60 percent greater for teenagers 14 or younger compared with women in their early twenties.
- Babies born to teenagers are two to three times more likely to die in their first year than babies born to women in their early twenties.

Contraception

- More than four million teenage women aged 15 to 19 are sexually active and at risk of pregnancy.
- Of the estimated 420,000 to 630,000 teenage women under 15 who are sexually active, only 7 percent are receiving contraception services.

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[67] "Young Single Mothers Learn Parent Skills," The Wingspread Journal, The Johnson Foundation, Racine, Wisconsin, Spring, 1980.

[68] Hooper, Judith O., Teenage Pregnancy -- An Overview, paper, Family Living Extension, University of Wisconsin-Madison, March, 1980.

Life Options

Education

- Eight out of ten women who become pregnant at 17 or younger never complete high school.
- Among teenage mothers 15 and younger, 9 out of 10 never complete high school. and 4 out of 10 don't even complete eighth grade.

Employment and Economic Opportunity

- More than 75 percent of teenage mothers have no work experience before the birth.
- Most teenage mothers do not have access to child-care facilities.
- Teen-age mothers are five times more likely to be unemployed and on welfare than mothers who postpone their childbearing until their twenties.

Marital Prospects

- Teenage marriages are two to three times more likely to break up, compared with those who marry in their twenties.
- One-fifth of premaritally pregnant teenage couples break up within one year, one-third within two years, and three in five within six years.

Family Size and Spacing

- Women who have their first child at age 17 or younger will have 30% more children than women who begin childbearing at ages 20-24.
- One-sixth of all women who give birth to a child before they are 18 are giving birth to their second or third child.

Some facts from one state -- Wisconsin figures for 1977:

- 9,083 Wisconsin teenagers became pregnant in 1977.
- There were 5,195 reported abortions to teenagers in 1977.
- One out of every ten girls between 15 and 19 in Wisconsin became pregnant in 1977.
- 3,888 babies were born to Wisconsin teenagers in 1977 (56.7% in Milwaukee county).
- Teens 14 and younger accounted for 105 births in 1977.
- 88% of teenage women kept their babies in 1977.

If we assume that a very conservative 50%, or 1,944 of these mothers received Title XIX and AFDC at an estimated cost of $4,800 for the first year (for prenatal care, delivery, AFDC, plus continuing medical assistance for mother and child), the total cost to the state in 1977 alone would have been

$9,331,200.00

The vast majority of these mothers and their children will continue to receive state

assistance for up to 18 years.

Professor Hooper used the following references in compiling the foregoing figures on teenage pregnancy:

Green, C.P., and Potteiger, K. Teenage pregnancy: A major problem for minors. Zero Population Growth, undated. (One copy free from ZPG. 1346 Connecticut Avenue, N.W., Washington, D.C. 20036).

Nye, I. School-age Parenthood. Washington State Cooperative Extension Service, 1978. (One copy free from Cooperative Extension Service, Washington State University, Pullmann, W.A., 99164. Ask for Bulletin #667.).

Planned Parenthood of Dane County. Teenage Sexual Behavior in Wisconsin: A Challenge for Adults. No date.

In addition to the foregoing information on teenage pregnancy, a Wingspread conference sponsored by the Florence Crittendon Division of the Child Welfare League of America, reported that:

- Teenage mothers are more likely to abuse their children than more mature mothers.
- Children of teenage mothers are more likely to be mentally retarded than are children of more mature mothers.[69]

In an article in the Summer, 1980 Journal of Home Economics, Boss and Hooper state that:

> "Generalizations that adolescent pregnancy is declining are not warranted. An *increase* in pregnancy is occurring among just those adolescents who are least able to cope with pregnancy and parenthood. First of all, very young teenagers lack the emotional readiness to parent since they have not been fully parented themselves. Second, they lack the social readiness to parent since they are without access to formal and informal networks and institutions that support more adult parents. Third, these teenagers are usually unprepared to take on the economic responsibilities of parenthood. Fourth, their biological readiness to parent has been called into question, particularly by the medical community, which points to increased incidence of birth defective infants born to very young mothers. Finally, the birth of a baby to a 14-, 15-, or 16-year-old is problematic for many others as well: the baby, the father, the mother's family, the father's family, and society."[70]

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[69] The Wingspread Journal, The Johnson Foundation, Racine, Wisconsin, Spring, 1980.

[70] Boss, Pauline Grossenbacker, and Judith Oakey Hooper, "Teaching Adolescents about Parenthood," Journal of Home Economics, Summer, 1980, p. 40.

Roberts, also writing in the Summer, 1980 Journal of Home Economics, called attention to a research report by school counselors[71] in the Markesau, Wisconsin school system which indicated that "70 percent of the pregnant unmarried senior girls were intentionally pregnant in 1974-75. The young women's reasons for becoming pregnant included one or more of the following:

- to escape from an unpleasant home situation;
- dislike for school;
- to trap a mate;
- to create a captive love;
- to receive recognition from authority figures;
- to prove womanhood;
- to qualify for financial assistance."

Roberts continues, "On the other hand, research studies support unintentional pregnancies. The Alan Guttmacher Institute report states that only 10 percent of unmarried 15- to 19-year-olds studied became pregnant intentionally."[72]

Boss and Hooper have prepared a cost-benefit model for teaching responsible decision-making, which is presented for its usefulness in a variety of situations, but is here applied in considering the question of engaging in premarital intercourse.

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[71] Cattanach, T.J. "Coping With Intentional Pregnancies Among Unmarried Teenagers," The School Counselor, 23: 211-215, January, 1976, reported in Roberts, Joan E., "Teenage Sexuality and Parenthood," Journal of Home Economics, Summer, 1980, p. 38.

[72] Alan Guttmacher Institute, "11 Million Teenagers; What Can Be Done About the Epidemic of Adolescent Pregnancies in the United States?" The Institute, New York, 1976, reported in Roberts, op. cit., p. 38.

Cost-Benefit Model for Teaching Responsible Decision Making[73]

Sample Question: "Should I or shouldn't I engage in premarital intercourse?"

Values that Define the Situation	Decision Options	Costs or Benefits of Decision
Society Community Parents School Religion Peer Group Other	A. Yes 1. I'll prepare and get some birth control since I don't want a child now . . . . . 2. I won't use birth control since I want a child now	A. *Costs*[2]: Guilt; Interrupted education *Benefits*[2]: Sexual expression without pregnancy; Wanted pregnancy
	B. No 1. I'm not ready yet. 2. I have other priorities right now. 3. I haven't met the right person yet. 4. I haven't had the opportunity. 5. I don't want to before marriage.	B. *Costs*: Guilt[3] *Benefits*: Freedom from fear of pregnancy
	C. I don't want to think about it.[1] (a decision not to decide) 1. Premeditation is unromantic, unfeminine, unmasculine. 2. Nice girls/boys don't think about sex. 3. If intercourse happens, it won't be my doing. It will be the fault of liquor, an eager partner, or the situation. I therefore retain a false innocence if intercourse happens this way.	C. Avoids the guilt issues since no responsibility is taken. Attitude is "I couldn't help it." Likelihood of unwanted pregnancy is highest here, thus a major cost results from "decision not to decide."

[1] Paradoxically, many adolescents who think that premarital sex is immoral fall into this category. The option of birth control is not available to them since they have been taught that thinking about and having sex are immoral. Thus Option C is all that remains for these adolescents if they are sexually active.

[2] Students should provide other examples based on their particular values and subcultural norms.

[3] There may be a growing trend for adolescents to feel guilty when they say "no," especially in more liberal settings.

The authors state that "Teaching a process for making decisions based on the cost and benefits of a particular decision may provide a more effective, less prescriptive way to help teenagers understand the emotional, social, and economic

[73] Boss, Pauline G., and Judith O. Hooper, op. cit., p. 40.

costs of early pregnancy."[74]

They advise, concerning use of the model:

> ". . .students must first be allowed to express personal values and subcultural norms in an educational climate of tolerance. Students and teachers need to be able to tolerate values other than their own. Second, students must learn about all the options available to them based on a variety of decisions they could make. Some teenagers are not even aware that there are other ways to demonstrate adulthood besides becoming a parent. Third, students must learn about the costs and benefits of each of their potential decisions within the context of their respective value systems. For example, it may cost a young girl more psychologically to use birth control than not to if she has been taught by her family that contraception is wrong.[75]

Teenage Fathers

Although much attention has been focused on the teenage girl in pregnancy and motherhood, relatively little attention has been given the teenage father. A study by Pannor, Massarek, and Evans[76] may be the most comprehensive work on the subject of unmarried fathers. Data about teenage fathers were compiled from personal interviews, case records, and personality inventories. The following information about teenage fathers emerged:

- The greatest number were aged 20-24.
- Fifty percent were from families without fathers.
- They tend to possess adequate social skills for obtaining ends and objectives.
- They are lacking in social maturity and a sense of responsibility and are interested in self-gain.

Social workers who interviewed the unmarried fathers felt that 96 percent of them used sex to prove their masculinity and that they thought of sex as fun and gave little thought to the consequences. Some social workers have encouraged unmarried fathers to become involved in the casework regarding their children in order to

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[74] Ibid., p. 42

[75] Ibid., p. 42.

[76] Dannor, R., F. Massarek, and B. Evans, The Unmarried Father, Springer Publishing Company, New York, 1971.

help them behave responsibly toward mother and baby and in order to reduce the chances of the situation's being repeated.

Abortion

Many unwanted pregnancies end in abortion. Legal abortion, according to 1974 data, is the most frequently performed surgical procedure in the nation. It is estimated that, in 1976, over 1.1 million legal abortions were performed nationally. The total U.S. abortion rate (abortions per 1,000 women aged 15-44) was 16.6 in 1973 and 23.3 in 1976.[77]

Only 26 percent of patients obtaining legal abortions in 1975 were married at the time of the procedure. One-third of women obtaining abortions in 1975 were teenagers. In 1975, of all pregnant teenagers under 15, more obtained abortions than gave birth.[78]

Adoption

There has been a dramatic decrease in the number of healthy newborns available for adoption since 1969, due largely to an overall decrease in general birth rate and a decreasing proportion of unwed mothers releasing their children for adoption.

In 1969 when the general birth rate was 17 live births per 1,000 women of childbearing age, 31 percent of unwed mothers released their infants for adoption. In 1973 (general birth rate: 13/1,000), 14 percent of infants born out-of-wedlock were released for adoption. Only 10 percent of unwed mothers released their children for adoption in 1975.[79]

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[77] Sullivan, E.; Tietze, C. and Dryfoos, J.G. "Legal Abortion in the United States, 1975-1976." Family Planning Perspectives, Volume 9, No. 3, May/June, 1977, pp. 116, 117, 121, 124-129.

[78] "More abortion patients are young, unmarried, nonwhite; Procedures performed earlier, and by suction; 1/5 repeats." Family Planning Perspectives, Volume 9., No. 3, May/June, 1977, pp. 130-131.

[79] Waddington, L., Division of Family Services, State of Wisconsin, personal communication to C. Bell, Administration Staff, School of Family Resources and Consumer Sciences, University of Wisconsin-Madison, June, 1977.

The majority of adopting families are two-parent families and with decreasing numbers of healthy young children available for adoption, some agencies are limiting adoptions to these two-parent families without children or those with only one young healthy child. Single parents are the nation's smallest identifiable group of adoptive applicants and many agencies refuse placements with single parents except for older or hard-to-place children.[80]

An Urban League study, reported in the Washington Star, concluded that ninety percent of black children born out of wedlock are retained, by informal adoption. by the extended family. The report concluded that "one of the key functions performed by the black extended family is the informal adoption or foster care of children by grandparents, aunts, uncles, and other kin."[81]

Teen Age Suicides

The third leading cause of deaths among young Americans is suicide. In 1977, nearly 5,000 Americans under 24 committed suicide; 100,000 attempted it. More girls than boys attempt suicide, but more boys are successful. The common method is lethal drugs.[82]

According to the Surgeon General of the United States, the suicide rate of males 15-19 has tripled since 1950. The suicide rate has doubled for males aged 10-24; other violent deaths also are increasing.[83]

Violence and Child Neglect in Families

A high level of family violence, particularly child and wife abuse, exists today,

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[80] Ibid.

[81] Anderson, David E., "Informal Adoption Seen Aiding Blacks," The Washington Star, July 31, 1977, p. A-16.

[82] "Teenage Suicide," Coed Magazine, January, 1980, pp. 52-55.

[83] Reported in the Milwaukee Journal, January 16, 1980.

along with many reported incidents of child neglect.

Over the past several years, the American Humane Society has gathered information on the number of official reports of child abuse and neglect. Their studies show a substantial increase in the cases reported — *from slightly over 400,000 in 1976 to slightly over 500,000 in 1977 to slightly over 600,000 in 1978.*[84]

There is general agreement among experts that the number of official reports is significantly less than the number of actual incidents of abuse and neglect. The National Center for Child Abuse and Neglect has concluded that an estimate of 1,000,000 cases a year is a "best guess" of the actual incidence - roughly 200,000 cases of abuse and 800,000 cases of neglect.[85]

Whereas abuse and neglect are heavily concentrated on young children (51 percent of all substantiated reports are on children aged 7 or younger), abuse and neglect of teenagers is significant (22 percent of all substantiated reports are on children aged 13 through 17). Physical abuse is found in 22.6 percent of all substantiated cases, sexual abuse in 6.2 percent, emotional maltreatment in 22.4 percent, neglect in 86.4 percent, and other forms of maltreatment in 11.1 percent. These add up to more than 100 percent inasmuch as a single child may be subject to more than one form of maltreatment.[86]

Steinmetz, reporting in the Journal of Home Economics,[87] stated that, in a recent study of 2,143 families, none of which was a single parent family, 98 percent of children had experienced some form of physical punishment, 58 percent had

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[84] "Incidence of Child Abuse and Neglect," prepared by David W. Sears, Midwest Parent-Child Review, Volume V, No. 3, Spring, 1980, p. 11.

[85] Ibid., p. 11.

[86] Ibid., p. 11.

[87] Steinmetz, Suzanne, "Investigating Family Violence," Journal of Home Economics, Volume 72, No. 2, Summer, 1980, pp. 32-36.

been spanked in any one year, 13 percent had been hit with an object in any one year, 5 percent had had something thrown at them in any one year, and 50 percent had had something thrown at them while growing up. In a survey of over 2,000 families, 18 percent of children had engaged in violence toward a parent; 7 percent had thrown something at a parent; and 9.4 percent had severly attacked a parent during a year's time.[88]

Gelles and Straus, in the Spring, 1979 Journal of Social Issues, state that, with the exception of police and the military, the family is perhaps the most violent social group and the home the most violent social setting. They reported on a 1979 National Survey of Family Violence.[89] Included in the study were 2,143 couples; of this number, 1,146 had children 3-17 years of age. They found that:

- 82 percent of three to nine year olds had been hit during the year of the survey
- 66 percent of 10 to 14 year olds had been hit during the year of the survey
- 34 percent of 15 to 17 year olds had been hit during the year of the survey
- Three in 100 were kicked, bitten or pinched in that year
- One in 100 were beaten during the year of the survey
- Eight in 100 were beaten at one time in their life
- Four in 100 were beaten at least once while growing up
- One in 1,000 were threatened with knife or gun
- Three in 100 were threatened with knife or gun sometime during their lifetime

People learn to be violent by observing and experiencing violence while growing up. There is conclusive evidence that the abused child grows up to become the

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[88] Ibid.

[89] Gelles, Richard J. and Murray A. Straus, "Violence in the American Family," Journal of Social Issues, Spring, 1979, pp. 15-36.

abusing parent *unless the institutions of society intervene through education and programs of prevention and treatment.*

At hearings on domestic violence before the U.S. House Subcommittee on Domestic and International Scientific Planning, Analysis, and Cooperation (February 14-16, 1978), Dr. Murray A. Straus reported[90] that:

- One-fourth of all American couples (13,000,000) have had a violent episode sometime during their marriage.
- 1,800,000 wives are beaten by husbands each year.

In 1975, there were 2,359 spouse murders. Wives who murder their husbands tend to do so after they have been beaten; husbands kill without such provocation.[91]

Increasing concern is being expressed nationally by groups and individuals about the effects of television violence on American children and their families. At the 1977 annual convention of the American Medical Association in San Francisco, a key address was presented by Dr. George Gerbner, whose research shows that in general, families are ignored by television writers, particularly during hours when children tune in. Gerbner has also found that 56 percent of the men and 37 percent of the women in cartoons are involved in acts of violence.[92]

In a February 1977 issue of Newsweek magazine, a comprehensive look at the effects of TV violence on children and families included A.C. Nielsen's finding that children under five years of age watch an average of 23.5 hours of TV per week and that at that rate of viewing, today's typical teenager will have spent 15,000 hours in television watching by high school graduation, spending more time in that activity than any other except sleeping. Summarizing the evidence drawn from over 2,300 studies and reports on TV violence and children, Newsweek's Harry Waters

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[90] Miller, Mark, and Judith Miller, "The Plague of Domestic Violence in the U.S.," USA Today, January, 1980, pp. 26-28.

[91] Ibid.

[92] Researcher warns of warped TV view. Wisconsin State Journal, June 23, 1977, Section 1, p. 12.

says the findings are decidedly negative, ranging from marked drops in children's creative abilities, increasing paranoia and tolerance of violent behavior to perpetuation of sex and race stereotypes.[93]

Identified causes of family violence include: lack of skill in dealing with conflicts and problems of daily living, lack of knowledge of child development and guidance, social isolation, alcohol and drug abuse, and a violent family history.

Dr. Julian Ferhalt has stated that there are many indicators of child abuse and neglect. He warns that ". . .any single factor may not constitute abuse. . ., (but) if there are a number of signs and they occur frequently, child abuse or neglect should be suspected and reported."[94] The following warning signs of child abuse have been provided by the National Center on Child Abuse and Neglect.[95]

- bears welts, other skin injuries
- is often unclean; clothes are dirty or inappropriate for the weather
- has severely abnormal eating habits
- exhibits extremes of behavior - is unusually aggressive or destructive, or extremely passive and withdrawn; cries excessively or shows no response to pain or pleasure
- is either unusually adult in actions or overly immature
- seems unduly afraid of parents
- is unpleasant, hard to get along with, demanding, a cause of trouble
- is wary of physical contact, apprehensive when approached by another child (particularly one who is crying)
- is habitually absent from or late to school (may be kept home until physical evidence of abuse disappears)

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[93] Waters, H.F. What TV does to kids. Newsweek, February 21, 1977, pp. 62-67, 69, 70.

[94] "How to Recognize the Signs," Parade, September 16, 1979, p. 8.

[95] Ibid., p. 8.

- begs or steals food
- engages in frequent vandalism, sexual misconduct, or use of alcohol or drugs.
- needs glasses, medical attention
- shows severely retarded physical or mental growth
- is often tired, without energy.

The National Center on Child Abuse and Neglect[96] provides these signs of the abusing parent:

- seems to trust no one
- is reluctant to give information about the child's injuries or condition; when questioned, is unable to explain or offers far-fetched or contradictory information
- responds inappropriately to the seriousness of the child's condition, either by overreacting (seeming hostile when questioned) or underreacting (showing little concern or awareness of the child's needs)
- is overcritical of the child; seldom discusses him in positive terms
- seldom touches or looks at the child; ignores the child's crying or reacts to it with impatience
- expects or demands behavior beyond the child's years or abilities
- is isolated from family supports, such as friends, relatives, neighbors and community groups; consistently fails to keep appointments, discourages social contact and never attends or participates in various school activities or events
- appears to be misusing alcohol or drugs
- appears to lack control, or fears losing control
- cannot be located.

Gaining increased visibility is abuse of the elderly. Some experts estimate that between 500,000 and 2.5 million aged parents are abused each year in the United States.[97] The average victim is a woman over 75, often seriously ill and dependent

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[96] Ibid., p. 9.

[97] Bram, Renee, "Abused Elderly Hidden from Help," Wisconsin State Journal, Wednesday, July 9, 1980, Section 4, p. 3.

on her children; the average abuser is a middle-class, middle-aged female.[98] Types of physical abuse range from malnutrition and broken bones to being tied to a bed or chair. Psychological abuse, such as verbal threats and isolation, occur more often than physical maltreatment. Other types of abuse include theft or misuse of money and property or poor living conditions.[99] Because of the dependence of many elderly, most instances of abuse are not reported. When they are reported, social agencies may be reluctant to act, partly because laws are not sufficiently supportive. Abuse of the elderly is an area in need of attention by researchers and educators.

The Aging Member of the Family

The elderly population (65 years and older) is projected to grow to 34 million by 2010 and to 52 million by 2030. In 1976, the proportion of elderly to total population was 10.7 percent; by 2030, it is projected to reach 14-22 percent, depending on future fertility behavior. Increased numbers of elderly are living independently or with non-relatives.[100]

Whereas a high proportion of both aged men and women live in poverty, older women are particularly likely to suffer poverty. More than 50 percent of all single women over 65 live at or below the poverty level of $3,250. In 1975, only five percent of single women over 65 had incomes of more than $5,000 annually.[101]

Summers and Shields, writing in the Journal of Home Economics report that:

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[98] Ibid., p. 3.

[99] Ibid., p. 3.

[100] Extension Home Economics in the 80's: Issues, Trends, Needs, Task Force, Extension Committee on Organizations and Policy, published by the University of Kentucky, 1980, p. 8.

[101] Summer, Tish, and Laurie Shields, "The Economics of Aging Homemakers," Journal of Home Economics, Volume 71, No. 2, Summer, 1979, pp. 16-17.

> "Of all women over 65, about 62 percent no longer have spouses, while only about 23 percent of men over 65 find themselves in that situation. . . . There are 5.5 times as many elderly widows as widowers; twice as many grooms as brides over 65; and, of married men 65 or over, almost 40 percent have wives below that age.
>
> "A middle-aged and older full-time homemaker can realistically expect to live the latter years of her life alone and in poverty. One in five of these women will die in a nursing home."[102]

The positive aspects of aging have received meager attention. Butler, in an article in the Journal of Home Economics state that:

> "In spite of common stereotypes of old age as a time of loneliness, loss, poverty, and neglect, the last stage of life offers its own unique rewards. Old age can be a time of harvest, a chance to reap the dividends of a lifetime of work and family responsibility. Old age can bring with it a new sense of life's wholeness, a coming to terms with past conflicts, and a heightened sense of sheer pleasure in living."[103]

He suggested that, "Adding the study of normal aging into the home economics curriculum seems both natural and appropriate."[104] He urged home economists to study positive aging by observing old people in health-promoting and satisfying settings, and added:

> "Home economics offers another approach crucial for successful work with older people: the tenet that maintaining independence preserves dignity, self-esteem, and health. . . . It is amazing that millions of elderly men and women tenaciously hold onto independence in their own homes in spite of considerable obstacles.
>
> "It is this ability to remain independent that seems to me the most crucial element in quality of life for the elderly. Our challenge is to respond to older persons' needs without increasing their dependency. Disconcerting studies that need further investigation have suggested a distinct correlation between dependent settings and hastened degeneration."[105]

It is of interest that 55 percent of the older, less-educated women, who participated in the fourth American Women's Opinion Poll, conducted by Roper, supported changes in women's status in 1979, compared to 45 percent of the young,

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[102] Ibid., p. 17.

[103] Butler, Robert N., "Helping the Elderly," Journal of Home Economics, Fall, 1979, p. 33.

[104] Ibid., p. 34.

[105] Ibid., p. 34.

better-educated women in 1970, causing an editor of Working Women to comment, "Older, more traditional women are more liberal today even than young radicals were in 1970."[106]

With more people living out their life-span has come a situation in which many middle-aged and even "young elderly" persons are caring for aged parents. A growing number of self-helf and support groups are forming around the country to help these adults face the problems of aging parents.[107]

Neugarten, in Psychology Today,[108] stated that there are large numbers of families that are going too far in caring for older people, stripping themselves of economic, social, and emotional resources in order to do so. In fact, a recent study showed that parent-caring is becoming a major source of stress in family life. Institutionalizing a family member usually comes only after a family has done everything else they knew to do.

In 1974, results of a nationwide Harris Poll showed the average citizen thought of senior citizens as "old people rotting away in poor health."[109] That view is changing, in large measure due to the efforts of the Gray Panther movement led by and in the interests of older Americans. It is now a national political and social force manned by thousands of active and enthusiastic older Americans.

Alcohol and Drug Abuse

It may be recalled that the recent national poll conducted for the White House Conference on Families found that *60 percent* of respondents indicated that

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106 "Working Women, New Survey of the 70's: Women Work More, Better, and Enjoy," op. cit., p. 29.

107 Harris, Mark Jonathan, and Susan P. Harris, "After All I've Done for You," Prime Time, April, 1980, p. 27.

108 Neugarten, Bernice, interviewed by Elizabeth Hall, "Acting Ones' Age: New Rules for Old," Psychology Today, April, 1980, p. 77.

109 Lynch, Dianne, "70's Bring Visibility to Elderly," Wisconsin State Journal, January 16, 1980, Section 1, p. 6.

alcohol and drugs were among the things most harmful to families.

Since World War II, drinking by adolescents has risen steadily. The number of teen-age girls who drink has almost tripled in the last 15 years. By the 12th grade, four out of five adolescents drink. In 1975, 20 percent of all high school students reported that they were intoxicated at least once a week.[110] Califano, in discussing adolescent problems, stated that:

> "Some of the consequences of this problem drinking are brutally immediate: Forty thousand highway injuries and eight thousand deaths each year among young people age 15 to 24; trouble with teachers, parents or friends; vandalism and delinquency. But other consequences are long-term: not only chronic alcoholism and the disorders it spawns, but drinking habits that intensify with later stress and erupt in later crisis, emotional and physical."[111]

Adolescent drug use also may have severe repercussions for adult health. According to Califano:

> "During the late 60's and early 70's the use of drugs for non-medical purposes rose sharply in America. . . .the incidence of use remains high. And most troubling, the use of drugs has reached younger and younger age groups:
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> -"Twenty percent of 18 to 25 year olds, for example, report experience with cocaine; four percent of 12 to 17 year olds report some experience with cocaine.
>
> -"Nine percent of 12 to 17 year olds have used inhalants.
>
> -"Almost five percent of 12 to 17 year olds have used hallucinogens.
>
> -"More than one percent of the same age group have experimented with heroin.
>
> "The long-term effects of these and other drugs are still not fully known. But heavy drug use over a long period often leads to a slowing of psycho-social growth in adolescents; the consequences of addiction are destruction of the human body and spirit; the rehabilitation of drug addicts is expensive, frustrating, and only partially successful."[112]

A report from the National Survey on Drug Abuse states that, "The public is more likely to have had experience with marijuana than with any of the other psy-

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[110] Califano, op. cit., p. 3.

[111] Ibid., p. 3.

[112] Ibid., p. 3

choactive drugs studied."[113] On March 28, 1980, the Department of Health, Education, and Welfare released a major report on the hazardous effects of marijuana smoking.[114] Following are the major findings reported:

- The potency of marijuana in the United States has increased markedly over the past five years.
- Daily use of marijuana by high school seniors has increased from 5.8 percent in 1975 to 10.3 percent in 1979. Sixty percent have tried marijuana and 37 percent are current users. In 1979, 30 percent of the seniors reported they had used marijuana prior to the 10th grade, compared to 17 percent in 1975.

In addition, the report states that:

- Studies show that marijuana may affect the reproductive function of men and women and may affect the unborn child.
- It appears likely that daily marijuana use leads to lung damage similar to that resulting from heavy cigarette smoking.
- Extended use of marijuana over a period of years may eventually be shown to cause cancer in humans.

Dr. William Pollin, Director of the National Institute on Drug Abuse, stated that, "If widespread marijuana use, especially among young people, is not curtailed, our society may pay a large price in health consequences and medical costs."[115]

Finnegare reported that one in four narcotic addicts is a woman. She stated that:

> "The vast majority of women who abuse drugs are of childbearing age (between 15 and 40 years of age), and the implications are profound. It appears drug abuse has increased and had an effect not only on this generation of adult women, but also on future generations to which they give birth."[116]

Smoking as a Family Problem

Smoking, a national health problem, is also a problem for families. The cost

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[113] National Survey on Drug Abuse, Main Findings, DHEW publication, Volume 1, 1977.

[114] Reported in The Voice of the Wisconsin Association on Alcohol and Other Drug Abuse, Inc., April-May, 1980, p. 6.

[115] Ibid., p. 6.

[116] Finnegare, Loretta P., "Women in Treatment," Handbook on Drug Abuse, edited by R. Dupont, A. Goldstein, and J. O'Donnell, National Institute on Drug Abuse, January, 1979, p. 121.

of maintaining the smoking habit is high, as are the health costs involved. The government and the health care community are faced with the burden of picking up the pieces of the results of smoking — at a cost of five to seven billion dollars each year in health care costs alone.[117]

Califano, in writing on the problems of adolescence, included smoking among "those health problems that arise from habits and practices begun in youth - ticking like time bombs in the teenage years, only to explode in later life with serious, disabling, even prematurely fatal consequences.[118] He gave the following figures on teenage smokers.

> "Between 1968 and 1974, the number of teenage smokers increased by 50 percent; the percentage of teenage girls who smoke doubled. Every day 4,000 teenagers become regular cigarette smokers, 6 million adolescents 13-19 are regular smokers; each year 1,460,000 teenagers join the march of cigarette smokers down the road to disease, disabilities, and death."[119]

Califano pointed out the vulnerability of adolescents to the seductions of cigarette advertising. He stated that:

> "There are approximately 100,000 children under age 13 who smoke cigarettes regularly. And despite recent gains in efforts to publicize the health risks, the environment today is still filled with appeals to smoke: children and teenagers are exposed to one-half a billion dollars' worth of advertising for cigarettes; 53 million Americans still smoke. The decision to start smoking, unfortunately is most often made by children too young to make an informed decision, easy targets for the millions of dollars in cigarette advertising aimed at them. More that 75 percent of today's adult smokers began to smoke and acquired the habit before they were 21."[120]

The tragic consequences of teenage smoking are dramatically evident when one compares the later health consequences of smoking for two 16-year-olds, one who smokes a pack a day and one who does not. Califano has presented the following comparison.

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[117] Califano, op. cit., p. 3.

[118] Ibid., p. 3

[119] Ibid., p. 3

[120] Ibid., p. 3.

> "According to one estimate, the 16 year old smoker has one chance in ten of developing a serious lung disease: lung cancer, emphysema, or chronic bronchitis, for example — providing he or she manages to avoid a crippling or killing heart attack. By contrast, the non-smoker will have only one chance in one hundred of contracting a serious lung disease, and will have only half the risk of the smoker of suffering a heart attack.
>
> "Thus, cigarettes start ...(a)... time bomb ticking: to explode later as heart disease, cancer, stroke, emphysema, or some other killer."[121]

Narcissism

Recently, various authors have referred to a growing trend toward *narcissism*. This term, in essence, refers to a preoccupation with self. While the origin of the term is clinical, it is increasingly being used to describe a cultural phenomenon, hence "the culture of narcissism."[122]

A new emphasis on personhood has gained a great deal of ground, along with the concept that happiness lies not in the family but in opposition to it. Peter Marin, in an article in Harper's referred to the trend toward "deification of the isolated self."[123] A report from 300,000 readers of Better Homes and Gardens referred to it as the "me first" attitude.[124] Evidences of this attitude abound in family life and in some research on the family, and its individual members, with an underlying assumption of the rightness of primary concern for personal and immediate gratification and happiness. One of the real challenges of family life education is to question the trend toward narcissism and to support a more responsible ethos involving concepts of cooperation; concern for others, including generations yet unborn; and, yes, discipline. The fact that our system's *apparent* rewards are not in this direction makes the task difficult.

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[121] Ibid., p. 3.

[122] Program leaflet for conference on A Critical Look at Self in Society, Narcissism and Iatrogenesis, held at University of Wisconsin-Madison, May 5-6, 1980.

[123] Marin, Peter, "The New Narcissism," Harper's, October 1975, p. 45.

[124] "What's Happening to the American Family? A Report from More Than 300,000 Readers," Better Homes and Gardens, June 1978, p. 23.

Economic Factors and the Family

According to Ehrbar, writing in Fortune, February, 1980: the 1980 estimated median family income in the United States is $17,040 and it is expected to reach $20,499 in 1990.[125] He reports that 40 percent of working women are married to men with incomes above the mean.[126]

He states that, in 1978, the median black family income was 59 percent of the median white family income. For those black families headed by black men, the median income was 80 percent of the median white family income.[127]

Twenty-five million people, or 12.3 percent of the population, are below the poverty level of $7,410.[128] Most likely to be low earners are young workers, persons in service or farm labor occupations, and those with less than a high school education.[129] Women and blacks generally had larger percentages with low earnings in all age groups, occupations, and educational attainment categories, according to 1977 data.[130]

Ehrbar states that, "There is widespread fear that incomes will not keep pace with prices, even though, for most people, they so far have. There is no way to allay those fears because they are wholly justified."[131]

Krechel, in an article in the March, 1980 Fortune, indicated that, "By 1990,

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[125] Ehrbar, A.F., "The Upbeat Outlook for Family Incomes," Fortune, February 25, 1980, p. 123 and 127.

[126] Ibid., p. 127.

[127] Ibid., p. 128.

[128] Ibid., p. 129.

[129] Young, Anne McDougall, "Median Earnings in 1977 reported for Year-Round Full-Time Workers," U.S. Bureau of Labor Statistics, Volume 102, No. 6, June, 1979, p. 39.

[130] Ibid., p. 139.

[131] Ehrbar, op. cit., p. 130.

nearly 40 percent of the 67 million American families will be earning more than $25,000 a year, in 1977 dollars."[132] This group will command 60 percent of the nation's disposable income. The total amount "available for spending on frills and fancies will swell impressively."[133]

To maintain their spending, the majority of consumers have been willing to go into debt, particularly for larger items. Virtually all households have a refrigerator and a gas or electric range. Seventy-six percent have a clothes washer and 37 percent own a dishwasher. Microwave oven sales were up 12 percent in 1979 from the previous year. Ninety-eight percent own television sets. The sale of video-cassette recorders has doubled since 1977 and in 1979, $100,000,000 worth of home computers were sold. Electronic games sales jumped.[134]

Interestingly, Krechel states that, "In the eyes of the consumer analysts, much of the growth, and the sales growth of housewares generally, will be spurred by a new 'focus on the home,' i.e., Americans retreating to the family castle and raising the drawbridge."[135]

Work and the Home

In a provacative article in Apartment Life, Gold[136] indicated that the new neighborhoods are defined by career interests. He called the Job "a cultural support system, a grid for exploration and testing, a family intimacy and neighborly exchange."[137] Gold stated that

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[132] Krechel, Walter, III, "Two-Income Families Will Reshape the Consumer Markets," Fortune, March 10, 1980, p. 111.

[133] Ibid., p. 111.

[134] Ibid., p. 117.

[135] Ibid., p. 119.

[136] Gold, "Job is the New Neighborhood," Apartment Life, March, 1980, p. 30.

[137] Ibid., p. 32.

> "People are definitely in earnest about exploring the relationship between traditional work life (also called *real life*) and family life (also called *meaningful life*). The borders were always artificial — they're just being recognized as such now."[138]

Gold sees the job setting away from home as being the center for neighborly and "family" intimacy. In The Third Wave, Toffler, describes what he calls "the electronic cottage" — a return of much work *to the home* "on a new, higher, electronic basis, and with it a new emphasis on the home as the center of society."[139]

Toffler sees the following as moving us toward the electronic cottage:

- the fact that a large amount of work that is being done could be done anywhere — given the right configuration of telecommunications and other equipment.
- the shift toward "flexible hours" that some companies have made is consistent with working in the home.
- the fact that many women with small children are employed or wish to be, and work at home would make it possible for them to keep an eye on the children.
- the values of working at home for the environment — lessened travel, less pollution of the environment.
- less time spent in travel to and from the work-place, less travel costs, and cut-back on the use of fuel with consequent energy conservation as pay-offs.
- the need of businesses to reduce real estate and overhead costs.
- the "swelling demand for action to glue the family unit together again."[140]

Ethnic Minority Families[141]

In 1976, the Black population represented approximately 11 percent of all total

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[138] Ibid., p. 32.

[139] Toffler, op. cit., p. 210.

[140] Ibid., pp. 216-219.

[141] This section adapted from Simpson, Elizabeth Jane, "Legislation for Consumer and Homemaking Education: Social Implications," The Planning Papers on Consumer and Homemaking Education, The National Institute of Education, Washington, D.C., April, 1979, pp. 207-209.

national population. Sixty percent of Black families in 1976 were husband-wife headed and 36 percent were headed by woman without a husband present. More than 25 percent of Black families had five or more members compared with 20 percent of all American families. The majority of Blacks are metropolitan dwellers (74.7 percent in 1976) with 57.5 percent of the total Black population residing in central cities.[142]

The median income ratio for Black compared to White families was 58 percent in 1974; the income status of Blacks as reflected by the income distribution of Blacks has remained essentially unchanged since 1970. In March, 1975, about 43 percent of Black families had yearly incomes below $10,000 and, of those, over half had incomes below $4,000.[143]

In 1976, about five percent of the U.S. population was of Spanish origin. Over 30 percent of these families had five or more members - compared with 20 percent of all U.S. families. About 60 percent of Spanish origin families in March 1976 were Mexican, about 16 percent were Puerto Rican, 6 percent were Cuban, about 7 percent were Central or South American and 12 percent were of other Spanish background.[144]

Native Americans in the United States represent over 200 nations, tribes, or bands each differing in language, customs, and attitudes. Cal Dupree, Associate Professor of Native American Education at the University of Lethbridge, Alberta, Canada, speaking at the 1976 Bicentennial Conference on Vocational Education, emphasized the differences when he stated that what they have in common is Indian Fry Bread. Then, in a serious vein, he said that "Two other common factors readily apparent in most Native American groups are undereducation and poverty." He added

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[142] U.S. Bureau of the Census, Current population reports, Series P-60, no. 102, Characteristics of the population below the poverty level: 1974. Washington, D.C.: U.S. Government Printing Office, 1976, p. 40.

[143] Ibid., p. 24.

[144] Ibid., p. 40.

"I believe that vocational education has much to offer in beginning to eliminate these two demons that have been with us for over 200 years."[145]

Professor Dupree described problems of housing and health as most critical among Native Americans.[146] These are problems to which the field of home economics can respond.

Increasing numbers of Japanese, Chinese, and Filipino individuals and families contribute to the ethnic mosaic that is America. A large proportion make their homes in the inner city. Increasingly vociferous in terms of demands for recognition and rights are Eastern Europeans.

The Economic Value of Homemaking

Thirty-eight million women in the United States today are full-time homemakers. One of the more significant problems in the field of family law today is the matter of evaluating the services of these as well as employed homemakers, in their homemaking role.

Columnist Bob Greene[147] reports on the work of attorney Michael Minton, who has been working on this subject for the past six years. Minton, who specializes in divorce law, has consulted with economists, job counselors, and employment agencies in arriving at a detailed chart listing ways in which an average housewife with two young children spends her time — how many hours she spends on each function and how much her time is worth.

Following is Minton's breakdown of a housewife's monetary worth, function by function:[148]

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[145] Dupree, Cal, "Meeting the Future Vocational Education Needs of Native Americans," The Future of Vocational Education, The Center for Vocational Education, The Ohio State University, Columbus, Ohio, 1977, p. 129.

[146] Ibid., p. 136.

[147] Greene, Bob, "How Much Is a Housewife Worth?" Wisconsin State Journal, August 10, 1980, Section 7, page 2.

[148] Ibid., p. 2.

Food buyer — 3 hours a week, at $12.85 per hour.
Nurse — 1 hour a week, at $5.14 per hour.
Tutor — 2 hours a week, at $6.43 per hour.
Waitress — 2.25 hours a week, at $5.14 per hour (including tips).
Seamstress — 45 minutes a week, at $3.21 per hour.
Laundress — 3 hours a week, at $3.21 per hour.
Chauffeur — 3.5 hours a week, at $5.14 per hour.
Gardener — 2.25 hours a week, at $3.86 per hour.
Family Counselor — 2 hours a week, at $45 per hour.
Maintenance Worker — 1 hour a week, at $3.21 per hour.
Nanny — Full time, at a weekly rate of $149.
Cleaning Woman — 7.5 hours a week, at $3.21 per hour.
Housekeeper — 2.5 hours a week, at $3.98 per hour.
Cook — 12 hours a week, at $3.98 per hour.
Errand Runner — 3.5 hours a week, at $3.79 per hour.
Bookkeeper/Budget Manager — 3.5 hours a week, at $6.43 per hour.
Interior Decorator — 1 hour a week, at $32 per hour.
Caterer — 1.5 hours a week, at $7.71 per hour.
Child Psychologist — 5 hours a week, at $40 per hour.
Household Buyer (general merchandise) — 2 hours a week, at $10 per hour.
Dishwasher — 6.2 hours a week, at $3.02 per hour.
Dietitian — 1.2 hours a week, at $6.80 per hour.
Secretary — 2 hours a week, at $4 per hour.
Public Relations Woman/Hostess — 1 hour a week, at $20 per hour.

This adds up to $785.07 per week - or an annual salary of $40,823.64. Minton adds that:

> "The surprising thing, is that even in this age when many women are working outside the home, the pattern does not change once those women arrive back at the house in the evening.
>
> "Even in the so-called liberated households, in which the women hold full-time jobs outside the house, the pattern exists. A woman holding a full-time outside job spends just as much time on housecare and childcare as if she were a full-time homemaker."[149]

According to Minton, an average woman spends between eight and twelve hours a day on household chores; her husband, however, averages only 36 minutes a day

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[149] Ibid., p. 2.

on household chores.[150]

Fethke and Hauserman called homemaking "the invisible occupation."[151] They indicated that three key variables appear to control time spent on various homemaking tasks: number of children, age of the youngest child, and employment of husband and wife outside the home.[152]

Fethke and Hauserman stated that:

> "Homemakers need to be incorporated into the labor force so that society will perceive their services as work performed. Moreover, the GNP, which is the basis of much legislation, must be reconsidered to include the contribution of homemakers outside of the marketplace.
>
> "With the growth of the women's movement and the continued thrust toward equality for all persons, the unequal status of homemakers becomes more sharply focused and demands attention. It is time that society devote its energy to recognizing homemakers' services. The invisible occupation has been invisible long enough."[153]

IMPLICATIONS FOR CONSUMER AND HOMEMAKING EDUCATION

The foregoing information on families points incontrovertibly to a need for emphasis in Consumer and Homemaking Education programs on:

- *the meaning of family and diverse modes of family life.*
- *human development.*
- *the family life cycle.*
- *family relationships.*
- *realistic sex education in the context of family life education.*
- *parenting skills.*
- *the responsibilities of parenthood.*

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[150] Ibid., p. 2.

[151] Fethke, Carol C. and Nancy R. Hauserman, "Homemaking: The Invisible Occupation," Journal of Home Economics, Volume 71, No. 2, Summer, 1979, pp. 20-23.

[152] Ibid., p. 20.

[153] Ibid., p. 23.

- *enrichment of marriage and family life.*
- *the effects of divorce on family members.*
- *the effects of family violence, drug and alcohol abuse, and smoking on children and adults in the family.*
- *the contributions and needs of all family members, including the elderly.*
- *changing sex roles.*
- *the family in relation to the world of work.*
- *how the family influences and is influenced by other social institutions.*
- *how families can cope with outside pressures, for example, peer pressures for conformity and advertising that arouses more "wants" than one's income can satisfy.*
- *narcissistic life styles and their effects on others.*
- *dealing with family crises.*
- *how to influence public policy issues that impact on the family.*

These are value-loaded areas. Great sensitivity is required in helping students understand the values involved and learn how to take these into account in the decision-making process.

Sharon and Samuel Nickols discussed "Ethical Issues in Changing Lifestyles" in the Summer, 1980 Journal of Home Economics.[154] *They suggested ways of analyzing ethical issues and stated some issues that they felt needed exploration. They stated that, "Home economists can facilitate the discussion of ethical dimensions of family decisions by providing forums for such discussions."*[155] *They further stated that:*

> *"Changes now confronting the family are extremely complex. No single discipline or area of specialization can expect to address all the ramifications of every change. However, two aspects of home economics as a discipline make it uniquely suited to the challenge of exploring the ethical dimensions of changing lifestyles. First, home*

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[154] Nickols, Sharon Y. and Samuel A. Nickols, "Ethical Issues in Changing Lifestyles," Journal of Home Economics, Volume 72, No. 2, Summer, 1980, pp. 24-27.

[155] Ibid., p. 27.

economics is a holistic discipline. Second, home economics is interdisciplinary. These characteristics allow the consideration of ethical dimensions to be an integral part of the concern for changes in lifestyle as reflected in programs, publications, and the other activities of home economists."[156]

Among those ethical issues that Nickols and Nickols suggest for analysis are the following:

- *"On what issues and at what points should minors have the right to live by their own values that are the basis for their personal behavior?"*[157]
- *"Shouldn't all parents be more informed about genetics if they are striving to be morally responsible?"*[158]
- *What impact will household computers have on human interaction? "If household computers save time for people, how will they use this time?"*[159]
- *"How are conflicts resolved when respect for and faith in modern medicine clashes with the values of self-determination and financial solvency?"*[160]
- *"What is a fair division of household working if the husband and wife both work equal hours outside the home?"*[161]
- *"Whose career development takes precedence if both husband and wife have careers?"*[162]
- *"Can society continue to support the levels of space and energy consumption of persons who maintain a household alone?"*[163]

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156 Ibid., p. 27.

157 Ibid., p. 25.

158 Ibid., p. 25.

159 Ibid., p. 25.

160 Ibid., p. 25.

161 Ibid., p. 26.

162 Ibid., p. 26.

163 Ibid., p. 26.

The foregoing list is intended to be provocative and suggestive of the kind of ethical questions that should be explored in family life education as a critical dimension of Consumer and Homemaking Education.

CHILD CARE AND DEVELOPMENT

Child Care and Development is an essential component of any Consumer and Homemaking Education program. It is taught for an understanding of human development, for self-understanding and for development of the understandings and skills of parenting. It serves to introduce students to a field of study which they might wish to pursue in career-oriented child care educational programs.

Child care and development should be taught in the context of family life education. It should include experiences in observing and working with children.

Parent Education and Child Development

Coward and Kerckhoff,[164] writing in the March, 1978 Journal of Home Economics, recommended that courses in the public schools that prepare for parenting include, in addition to a study of normal child growth and development, the following:[165]

- discussions of the available alternatives for guiding children's behavior.
- development of the skills necessary to communicate with children.
- exploration of the effects children have on the marital relationship.
- identification of personal value systems and recognition of their impact on the parent/child relationship.
- appreciation of the commitment necessary to be a parent, and
- experiences in supervised interaction with young children.

Coward and Kerckhoff suggest that adolescence is a particularly appropriate time for education for parenthood for the following reasons:

- . . ."frequently teenagers themselves become parents before they are emotionally, physically, and financially prepared to handle the job."[165]

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[164] Coward, Raymond T. and Florence G Kerckhoff, "Parent Education in the Public Schools," Journal of Home Economics, Volume 70, No. 2, March, 1978, pp. 24-27

[165] Ibid., p. 25.

[166] Ibid., p. 26.

- . . ."for those adolescents who are not parents themselves, the study of parent/child relationships does not have the same sense of urgency that often faces parents or expectant parents. Most adolescent students, therefore, can consider alternative methods and procedures without the pressing need to 'have an answer' now."[167]

- . . ."adolescents who participate in education for parenthood programs gain a sense of mastery, of being helpful, which fosters self-esteem and further growth.

Child Care*

Increasing rates of single parenthood and maternal employment in recent decades have sparked concomitant increases in the need for and utilization of alternative care arrangements for children. Not surprisingly, these changes have themselves generated a great deal of concern in the minds of policymakers, program administrators, human developmentalists, and parents about the short and long-term effect of day care on the psycho-social development of children.

Most research on day care and child development has been conducted in university-based or university-connected centers with high staff-child ratios and well-designed programs directed at fostering cognitive, emotional, and social development. However, most of the day care available to the majority of parents is certainly not of this type or quality. Only a few studies deal with family day care, and virtually no data are available about the effects of leaving children with a babysitter for extended periods of time. Interestingly, with a single exception (Moore, 1975),[169] there are also no follow-up studies of children exposed to home versus day care beyond the preschool years. It is entirely pos-

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[167] Ibid., p. 26.

[168] Ogg, E. "Preparing Tomorrow's Parents," New York: Public Affairs Pamphlet No. 520, 1975, quoted in Coward and Kerckhoff, op. cit. p. 26.

* This section on Child Care was written by Dr. James Blackburn, Lecturer, Child and Family Studies Program Area, School of Family Resources and Consumer Sciences, University of Wisconsin-Madison.

[169] Moore, T., "Exclusive Early Mothering and Its Alternatives: The Outcome to Adolescence," Scandinavian Journal of Psychology, 1975, Volume 16, pp. 255-272.

sible, that such differences as have been reported between home-reared and day-care-reared children may disappear with time or, conversely, as Moore[170] suggests, that "sleeper effects" may emerge at later age levels.

The effect of day care upon the intellectual development of the child has been extensively researched but almost exclusively with children enrolled in high-quality university-based programs. Data from these programs suggest that the day care experience has neither salutary nor adverse effects on the intellectual development of most children as measured by standardized tests. However, according to Golden and Birns,[171] for economically disadvantaged children day care may have an enduring positive effect.

Findings on intellectual abilities other than those measured by standard intelligence tests are equivocal at best. However, Macrae and Herbert-Jackson[172] report that early entry into day care is associated with higher levels of problem solving, abstraction abilities, and planfulness. Yet, Schwartz, Strickland, and Krolick[173] report no differences on similar measures. These authors stress the need for further research which will focus on the effects of day care on intellectual abilities assessed through observation rather than standardized tests. Clearly, it is important to discover whether children in day care programs learn functional skills applicable in every day life or whether they are simply being trained to take batteries of intelligence tests. Therefore, it is important to assess intellectual development in a number of different ways. It may be that children

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[170] Ibid.

[171] Golden, M. and B. Birns, "Social Class and Infant Intelligence," In M. Lewer, ed., Origins of Intelligence, Planium, New York, 1976, p. 299-347.

[172] Macrae, J.W. and E. Herbert-Jackson, "Are Behavioral Effects of Infant Day Care Programs Specific?" Developmental Psychology, December, 1975, Volume 11, No. 5, pp. 269-270.

[173] Schwartz, J.C.; G. Krolick; and R.G. Strickland, "Effects of Early Day Care Experience on Adjustment to a New Environment," American Journal of Orthopsychiatry, April, 1973, Volume 43, No. 3, pp. 340-346.

seeing their parents engage daily in a variety of tasks contributes more to the development of intellectual skills than does isolation from the home environment in a center full of cognitively stimulating materials. There is an urgent need to assess the impact of day care on functional intelligence in real-life settings.

Traditionally, the mother-child bond has been a prime focus of concern to those interested in the influence of early experience upon emotional development. Psychoanalytic theory and studies of institutionalized children have suggested that any arrangement that deprives the child of continuous access to the mother impairs the development of a strong maternal attachment and thereby adversely affects the child's emotional security. Since day care, by its very nature, entails the daily separation of mother from child, a good deal of attention has been devoted to discovering whether child care outside the home does disrupt the child's emotional tie to his or her mother.

However, the research purporting to show home care/day care differences in the children's attachments to their mothers is at best contradictory. Blehar's,[174] Ricciuti's,[175] and Cochran's[176] data provide evidence in favor of home-reared children. The data of Moshowitz[177] et al and Doyle and Somers,[178] in contrast, show differences in favor of day-care-reared children.

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[174] Blehar, M. "Anxious Attachment and Defensive Reactions Associated With Day Care." Child Development, September, 1974, Volume 45, No. 3, pp. 683-692.

[175] Ricciuti, H. "Fear and Development of Social Attachment in the First Year of Life." In M. Lewis and L.A. Rosenblum (Eds.), The Origins of Fear, New York: Wily, 1974, pp. 73-106.

[176] Cochran, M.A. "A Comparison of Group Day Care and Family Child Recovery Patterns in Sweden." Child Development, 1977, Volume 48, No. 2, pp. 702-707.

[177] Moskowitz, D; J. Schwartz; and D. Carsini, "Initiating Day Care at Three Years of Age: Effects on Attachment." Child Development, December, 1977, Volume 48, No. 4, pp. 1271-1276.

[178] Doyle, A., and Somers, B. "Infant Development in Day Care." Developmental Psychology, 1975, Volume 11, No. 5, pp. 655-656.

It is important to remember that most investigations have involved children from day care programs which may not be representative of those available to most parents, namely, centers run by universities for research purposes and providing high quality care. In general, effects of modal day care in America on the mother-child bond remain unknown. Nevertheless, one can conclude from the research that, given high-quality day care, significant disruption of the mother-child bond does not appear likely. There is also no reason to conclude that enrollment of children in high-quality day care leads to the replacement of the mother, by the caregiver, as the child's primary object of attachment.

In general, studies of the peer relations of day-care and non-day-care children indicate that at early and later ages there may be a tendency for day-care children to be more peer oriented, although a few investigators have not found this difference. Interestingly, the findings indicate that day care predisposes children toward greater aggressiveness, impressiveness, and egocentrism. However, some specialists in early childhood development suggest that this phenomenon may be specific to American society. Further research in this area is needed.

Early childhood education is a cooperative process. Families, professionals in child development and education, and paraprofessionals must be involved in the educational process. However, often these participants lack knowledge of human development and skill in working with young children. In-service programs, continuing education, and other training endeavors that better prepare individuals for their varying roles in early childhood education must be undertaken. Finally, research must be directed at assessing the effects of change in early childhood education on other social institutions, for example, the family and educational institutions and their programs. Research must determine in what ways American family's expectations about its young children's development are influenced by the posture of the early childhood community and the nature of educational interventions.

Primarily because of the increasing numbers of women working outside the home, the need for day care centers in the next two decades is expected to increase. Clearly, the availability and cost of day care will be influenced by public policy. Welfare policies that require women to work or that provide benefits below minimum living standards will force women to work and increase the need for day care. On the other hand, policies which promote flexible scheduling or work and extended pregnancy or parental leave for women and men may decrease the demand for group modes of care. Current trends in public policy indicate that the latter projection is probably not very likely to occur in the near future.

What Kinds of Preschool Programs Are Most Effective?

In 1978, Vopava and Royce addressed the question of what kinds of preschool programs are most effective.[179] "Program effectiveness was measured by determining how much the program helped its children avoid placement in special education classes in their later school careers. Five program characteristics (which were highly related to one another) were highly related to the measure of effectiveness:

- "age of child's entry into program, r = -.64
- "home visits, r = .64
- "program goals for parents, r = .83
- "parent involvement, r = .60
- "number of children per adult, r = -.83"[180]

Together, these results suggest that the most effective programs involved one instructor working with an infant or toddler and his or her parent in the home.

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[179] Reported in "What Kinds of Preschool Programs Were Most Effective?" Lasting Effects After Preschool, Summary Report, U.S. Department of Health, Education and Welfare, Office of Human Development Services, DHEW Publication No. (OHDS)79-30/79, 1979, p. 15.

[180] Ibid., p. 15.

The work of Lawton[181] and his co-workers is of interest here. From fall, 1975, to the present, he has been engaged in a longitudinal study on success in pre-school learning related to formal and open-framework programs. The open-framework program has been based on the work of Piaget and the formal program on theories of David Ausubel.

The Piagetian program gives equal emphasis to cognitive growth and social-emotional and physical development. Instructional methods include the use of guided self-discovery and inquiry. The instructional materials used are those found in many traditional preschools: a wide variety of objects of varying shapes, colors, sizes, and constituencies for the children to manipulate, classify, seriate, or conserve. According to Lawton:

> "Content is chosen which has the potential for enhancing intellectual development because children will find it interesting and stimulating. However, children are not directly taught operations. They may choose, spontaneously, to use such content in many different ways. The teacher may encourage certain usage of materials, but does not direct the child's activities when no predisposition to engage in certain operations appears."[182]

In describing the Ausubelian program model, Lawton explained that:

> "Ausubel suggests that cognitive structure is comprised of concepts and propositions (learned from various subject matter areas) arranged in hierarchical structures. In teaching children, it is advised that suitable subject matter be organized into a sequence with general ideas taught first and related, more specific concepts and factual information second. . . The crucial factor in presenting information during the school years is to provide adequate concrete examples of all concepts introduced, and allow the child to actively manipulate learning materials."[183]

Lawton concluded that the more structured program enhanced intellectual development better than the less-structured Piagetian program. The Paigetian pro-

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[181] Lawton, Joseph T. "Success in Pre-School Learning Related to Formal and Open-Framework Programs: A Preliminary Report," Home Economics Research Journal, Volume 7, No. 1, September, 1978, pp. 34-43.

[182] Ibid., pp. 36-37.

[183] Ibid., p. 36.

gram, in turn, performed better than an outside comparison nursery. He added, that: "Finally, though not conclusively, knowing subject matter concepts (e.g., animals: mammal, fish, birds, etc.) did seem to improve ability to generalize, especially when those subordinate concepts had been learned hand-in-hand with superordinate process concepts (e.g., hierarchical classification.)"[184]

It is imperative to note, however, that the criterion of effectiveness is difficult to define in early childhood education. Logical concept attainment is only one outcome worthy of attainment. Moreover, defining preschool programs in terms of specified characteristics for evaluation purposes is work that needs to be done. Much more research is required before firm conclusions can be drawn regarding what kinds of programs are effective, when, for whom, and, most importantly, how and why.

Children and TV

Increasing concern is being expressed nationally by groups and individuals about the effects of television violence on American children and their families. At the 1977 annual convention of the American Medical Association in San Francisco, a key address was presented by Dr. George Gerbner, whose research shows that in general, families are ignored by television writers, particularly during hours when children tune in. Gerbner has also found that 56 percent of the men and 37 percent of the women in cartoons are involved in acts of violence.[185]

In a February 1977 issue of Newsweek magazine, a comprehensive look at the effects of TV violence on children and families included A.C. Nielsen's finding that children under five years of age watch an average of 23.5 hours of TV per week and that at that rate of viewing, today's typical teenager will have spent 15,000 hours in television watching by high school graduation, spending more time

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[184] Ibid., p. 42.

[185] "Researcher Warns of Warped TV View." Wisconsin State Journal, June 23, 1977, Section 1, p. 12.

in that activity than any other except sleeping. Summarizing the evidence drawn from over 2,300 studies and reports on TV violence and children, Newsweek's Harry Waters says the findings are decidedly negative, ranging from marked drops in children's creative abilities, increasing paranoia and tolerance of violent behavior to perpetuation of sex and race stereotypes.[186]

In a published interview, John Condry, Associate Professor of Human Development and Family Studies, Cornell University and consultant to the Federal Trade Commission during its investigations into television ads, stated that:

> ". . .there is excellent evidence that watching televised violence inclines children to be more violent, and makes them less responsive to violence when it occurs. So there are a variety of indicators suggesting that television watching may affect social competence, but we need a good deal more research before we can pinpoint these effects and associate them directly with television."[187]

Some Critical Issues in Child Care and Development

Child psychiatrist Robert Coles, interviewed by the U.S. News and World Report, stated that:

> "Very little is asked of a lot of American children with regard to compassion and thinking of others. The emphasis is on using psychology to cultivate the individuality and self-importance of a child. One sees that in home after home. Children are encouraged to look out for themselves and get what they can. Very little emphasis is put on pointing the child's eyes and ears, and even heart and mind, away from himself or herself and toward others.
>
> . . . . . Parents spend all their time trying to find out whether a child should be treated this way or that, but there is no effort to look around and say: Hey, what do we really believe in? What do we want this child to believe in?"[188]

Coles sees a new kind of "uncertainty in the nation." He says that parents, with a feeling of suspicion and doubt about the very nature of the American economy

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[186] Waters, H.F. "What TV Does to Kids." Newsweek, February 21, 1977, pp. 62-67, 69, 70.

[187] "Reality in the Minds of Young Television Viewers, An Interview with John Condry," Human Ecology Forum, Volume 10, No. 1, Summer, 1979, p. 4.

[188] "Our Self-Centered Children - Heirs of the 'Me' Decade, A Conversation with Robert Coles," U.S. News and World Report, February 25, 1980, p. 80.

and the political system, tell children, "Try to get the best deal you can, given the erosion of the social and economic system." This attitude, he says breeds self-centeredness and narcissism.[189]

A number of social critics, commenting on the American social scene, have seen narcissism as pervading American life today. In particular, Christopher Lasch in The Culture of Narcissism,[190] examines the phenomenon of narcissism in America, its causes, and its effects in a way that should stimulate a response from those concerned for families and children.

How to move from narcissism to a broadened concern for others, for social needs, and for tomorrow and yesterday as well as today is both an American problem and issue. It should be of particular concern in rearing and guiding children.

A publication of the U.S. National Commission on the International Year of the Child listed the following issues as ones needing public scrutiny. They suggest areas of content for child care and development study in Consumer and Homemaking Education.

- "How can equal opportunity be promoted for all children so they may reach their full potential?
- "How is it possible to achieve a major commitment in the United States to permit a multicultural society to flourish?
- "How can understanding and acceptance of children with different cultural backgrounds, languages, race, sex and religion be increased?
- "To what extent do textbooks, language, media and other factors reinforce discrimination against children on the basis of race, sex, religion, language, ethnic origin or special needs?
- "What can be done to develop a spirit of concern for children in institutions?
- "How can barriers be removed that impede progress of children toward full participation in adult society?

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189 Ibid., p. 80.

190 Lasch, The Culture of Narcissism, Warner Books, New York, New York, 1979, 447 pp.

"How can interest in and understanding of all children throughout the world be increased?"[191]

Certainly, there are also issues related to such problems as: how to prevent and deal with child abuse, what pre-school experiences are most conducive to the total well-being and development of the child, and how to improve TV programming for children. These are of concern to all who provide education for parenting.

Additionally, there is considerable discussion today about who is responsible for child care; in particular, the role of parents vis'-a'-vis' the experts in child care is a matter of interest — particularly to parents. Coles stated that:

> "Many parents are afraid to bring up their children on their own — with their own convictions and their own moral faith. They're intimidated by all these experts who write books about child rearing and tell them what to do."[192]

Goldstone, in Eye on Education, a publication of the College of Education, Temple University writes:

> "Parent and family education programs must simply stop trying to strengthen the family by means that paradoxically weaken it. They must treat parents as autonomous individuals capable of making wise or unintelligent decisions on their own. They must recognize both that parents bring their life experience with them into their child raising roles, and that without this experience the possibilities for wise practical judgment are very slim. This is not to say that parents' judgments should be uninformed; indeed, they should be informed by the best we have in terms of theories and information about child raising. This is the proper task of defensible parent and family (and teacher) education, namely, to provide people not with pseudo-recipes but with the best available reflection which they can play into their own autonomous decisions. The consequences of the virtual abolition of parental authority are evident in the narcissistic culture that pervades American life, and future efforts in the areas of parent and family education must rest on conceptions which convincingly show them to be friends and not (unwitting) enemies of the family."[193]

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[191] What Are the Issues, Equality and Diversity for Children in the Year of the Child, a leaflet publication of the U.S. National Commission on the International Year of the Child, Washington, D.C., 1979, 9 pp.

[192] "Our Self-Centered Children —," op. cit. p. 80.

[193] Goldstone, Peter, "The Past and Future of Family Education," Eye on Education, College of Education, Temple University, Philadelphia, Pennsylvania, Volume 8, No. 1, 1980, p. 3.

IMPLICATIONS FOR CONSUMER AND HOMEMAKING EDUCATION

Child Care and Development is a major area of study in Consumer and Homemaking Education. Emphasis should be on understanding human development, including one's own development; the responsibilities and skills of parenting; and the social responsibility of concern for all children. Such objectives are not achieved in a unit of study covering two or three weeks. A major time commitment in the total program must be given this critical area of study.

Included as content should be: how children develop, beginning with conception; the principles of growth and development; the role and responsibilities of the care-giver; the child in relation to his or her family; care and guidance of the child; play and play materials in child development; how to learn from observing children; the home environment that best supports the childs' development; and the need for and ways of supporting the well-being and development of all children. Experiences with children are essential in the study of child care and development.

Issues in child care and guidance, such as the following, should be explored and conclusions to guide action drawn.

- *pre-school care and education - nature and locus*
- *the influence of narcissism in society on the child*
- *children and the effects of television*
- *the responsibilities of parents and the role of the experts*
- *child abuse, its causes and its effects*
- *equal opportunity for all children to reach their full potential.*

CONSUMER EDUCATION

The very name of the educational program, Consumer and Homemaking Education, underlines the importance of the consumer education aspect of the total program. And, perhaps in no other area, save that concerned with family form, function, and relationships, has there been so much change, so much development, and projections with such far-reaching implications for families and for education.

The field of consumer education is a relatively new one and its new professionals have been productive in their research and development efforts. The following section presents selected recent research, theory, and projections concerning the consumer and consumer education which have implications for Consumer and Homemaking Education as a part of vocational home economics.

The Field of Consumer Education

The following definition of consumer education is given in a report from the Michigan Consumer Education Center, August, 1979:

> "Consumer education is an area of study which equips individuals and groups with the knowledge and skills to make effective choices and take action regarding the use and conservation of available resources in the public and private sectors, consistent with individual values and societal needs."[194]

This definition helps set the stage for the following discussion of the bases for curriculum decisions in consumer education and the nature

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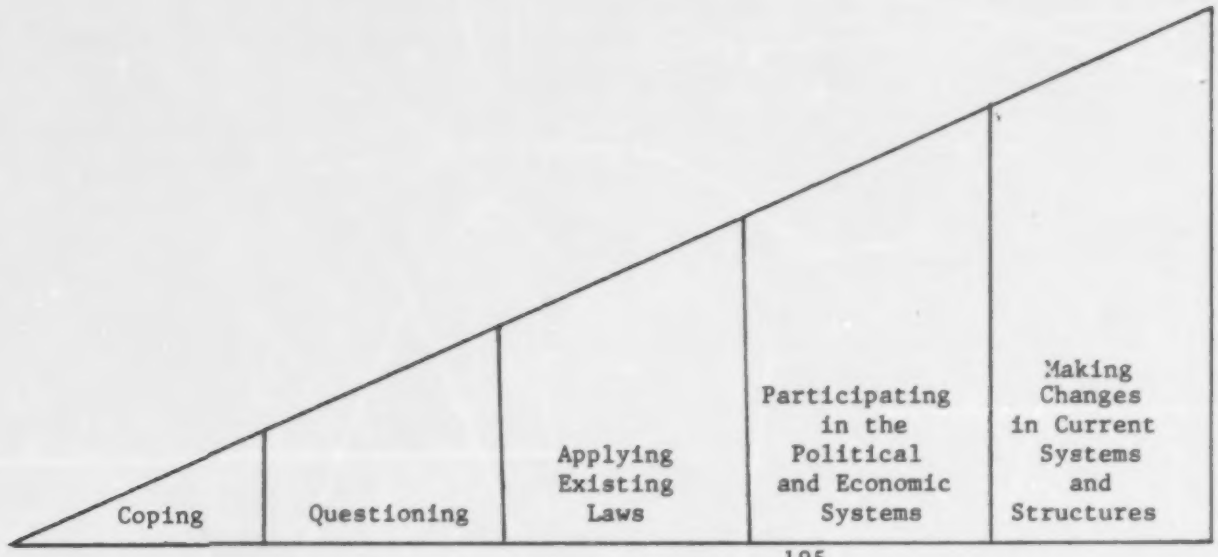
[194] Monsma, Charles, and Rosella Bannister, Effective Consumer Education Programs: Report on Question I of the Consumer Education Development Program, Michigan Consumer Education Center, August, 1979, p. 6. The definition is adapted in part from Sandra L. Willett, "The National Consumers' League View of Consumer Education," in Perspectives on Consumer Education (Washington, D.C.: National Association of State Boards of Education, 1978), Vol. 1, p. 10

of the content of the field. In a diagram which is consistent with the foregoing definition, Monsma and Bannister indicate the progression of consumer skills which consumer education should address.



Consumer Skill Levels[195]

Monsma and Bannister state that:

> "While this entire continuum may not apply to all consumer activities and many consumers will continue to operate at the coping stage, consumer educators must be able to apply concepts and develop materials at all levels in order to address the full range of consumer needs."[196]

They give the following guidelines for consumer education:

- Consumer educators should train consumers who are able to influence the marketplace rather than passive consumers who can only react to it.[197]
- Consumer educators should relate consumer education directly to the student's life in the marketplace.[198]

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[195] Ibid., p. 18.

[196] Ibid., p. 18.

[197] Ibid., p. 17.

[198] Ibid., p. 20.

- Consumer educators should integrate consumer concerns with the economic, political, social, and physical environments within which they operate.[199]

- Consumer educators should confront the future implications and global ramifications of consumer behavior.[200]

According to Stampfl, writing on "Educating the Post-Industrial Consumer:"

> "Consumer education in the 21st century will reach its maturity and, in so doing, assume the stature and influence it rightly deserves in a post-industrial society. But consumer educators now -- in the discipline's youth -- must build toward the discipline's maturity, to be reached some time in the 21st century. To do this, we must try to view the future marketplace and the society in which it functions, assess consumer behavior within that context and develop perspectives suitable to meeting the consumer education needs of the generations ahead."[201]

He continues:

> "We must balance the education of our people for the efficient production of wealth with education for the efficient and responsible consumption of wealth. This is the challenge of the 21st century and the post-industrialization of the American consumer will be the social force which causes consumer education as a discipline to reach its maturity."[202]

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[199] Ibid., p. 23

[200] Ibid., p. 23.

[201] Stampfl, Ronald W., On Educating the Post-Industrial Consumer, Working Paper, School of Family Resources and Consumer Sciences, University of Wisconsin, p. 1-2.

Footnote: Professor Stampfl's phrase "post-industrial consumer" is used to broadly represent the future consumer, a person making decisions in a economically, socially, and technologically different world, possessing many of the characteristics forecast by Daniel Bell in The Coming of Post-Industrial Society, New York, Basic Books, 1973. A post-industrial society evolves from a strong industrial base which must be maintained and yet is no longer the society's focal point. Therefore, current discussions of the reindustrialization of America, aimed at reestablishing and then maintaining our industrial productivity and ability to compete internationally are supportive of our ability to evolve into the society of the future. Simply, a strong industrial base facilitates natural evolution toward a post-industrial society. (Footnote supplied by Professor Stampfl).

[202] Ibid., p. 3.

Stampfl quotes Leonard Berry, who inventoried a sobering set of realities which have occurred during the last decade.[203]

- higher inflation
- higher - cost energy
- lower real growth in GNP
- erosion of consumer confidence
- growing entanglement of resource availabilities with international policies
- uncertain capital availability; and
- a growing ethic of resource conservation and environmental protection

Stampfl concludes that: "if the economy and consumers change dramatically, so must consumer education."[204]

As an aid to understanding the relationship of economic change to consumer education in American experience, Stampfl presents a typology of consumers which conceptually spans the 20th century and moves toward the 21st. He describes three types of consumers,[205] with the caution that exceptions to the generalizations are often present. The three types are:

1. The industrial age consumer
   - typically reached adulthood between 1920 and 1960,
   - was socialized into seeking "The American Dream," stressing ownership of material possessions, private dwellings and transportation, conveniences, and relatively small nuclear families,

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[203] Berry, Leonard L., "The New Consumer," in Stampfl, Ronald and Beth Hirschman (eds.) Competitive Structure in Retailing: The Department Store Perspective, American Marketing Association, Chicago, 1980. pp. 1-11.

[204] Stampfl, op. cit., p. 4.

[205] Ibid., pp. 4, 5, and 6. Also see Stampfl, Ronald W., "The Post-Industrial Consumer," Journal of Home Economics, January, 1978.

- accepted "more is better" life orientation,
- job-oriented,
- thought little about the impact of his or her own consumption upon society or the environment,
- was oriented toward solving consumer problems by earning more money in order to be able to spend more money

2. The transitional consumer

- reached or will reach adulthood between 1960 and perhaps 1990.
- is making most of his or her early adulthood consumption decisions in an era characterized by inflation, materials shortages, pollution problems, energy crises, and unprecedented government regulation of the marketplace
- is torn between the wants stimulated by industrial age marketing mechanisms and the "oughts" supportive of societal/environmental concerns
- is equally concerned with his or her job and efficient consumption decisions but seldom concerned with the social consequences of his or her economic actions.

3. The post-industrial age consumer

- will reach adulthood sometime after the year 1990
- will be concerned primarily with efficient and responsible consumption.
- will realize that saving a marginal dollar through efficient consumption is superior to earning a marginal dollar of income (due to tax effect)
- will insist upon buying only those products supportive of the ecosystem in which she or he lives

Stampfl concludes that, "Disposable packaging, 10-mile-per-gallon cars and industrial pollution of rivers and lakes will seem as fully out of place in post-industrial America as non-rotation of crops or the absence of penicillin would seem to the industrial age consumer."[206]

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[206] Ibid., p. 6.

In presenting a Consumer Values Profile, he states that:

> "At the heart of the behavior of human beings as consumers is the personal value structure each person holds. Due to the fact that consumers function in the same general social, economic and political environment at any one point in time, it can be expected that value profiles consistent with these environments could be drawn for large numbers of consumers."[207]

TABLE 1: CONSUMER VALUE PROFILES[208]

The Industrial-Age Consumer	The Post-Industrial-Age Consumer
1. Consume as much as you can	1. Consume as much as you need
2. Disposable/throwaway orientation	2. Recycling and conservation orientation
3. Maximize convenience, with little regard to cost	3. Assess cost of convenience and forego if cost/benefit is low
4. Non-functional changes (fashion relatively important)	4. Non-functional changes relatively unimportant
5. Ownership important	5. Use important
6. Little or no concern for external or social costs of products used	6. Great concern for external and social costs of products used
7. Emphasis upon growth and quantity	7. Emphasis upon stability and quality
8. Consumerism as a fringe value	8. Consumerism as a central value

Stampfl offers some "appropriate perspectives for the consumer educator in the years ahead, as the discipline moves toward maturity."[209]

. Wholistic perspective

> "Consumer educators of the future need to teach from a more integrated, wholistic perspective that will cause post-industrial

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[207] Ibid., p. 7.

[208] Ibid., p. 10.

[209] Ibid., p. 10.

consumers to see their role as consumer as fully integrated with their role as producer and citizen. How activities and behaviors in one role feed back into another role must be stressed . . . . . Such a perspective will. . . lead to a new level of sophistication required of consumers functioning in a post-industrial society."[210]

. Life-spanning Perspective

There is a "need for consumer educators to adopt a life-spanning perspective in educating consumers. Of particular importance is attention to changing information and skills needed at transition points in the consumer life cycle, e.g., moving from a full nest stage to single parent stage due to the death of spouse. Futhermore, consumers themselves must be sensitized to their need for continuing education as their life paths and circumstances change. Lastly, consumer educators must find new methods to reach consumers throughout their lives. The printed word is increasingly limited in reaching consumers primarily attuned to the electronic media."[211]

. Value Clarification Perspective

"Value clarification is a process of search and choice. Consumer educators must facilitate this process for students if their professional and consumer behavior is to be supportive of the social, ecological, political and ethical imperatives of a post-industrial era. . .

"Knowledge of values and value clarification methods will prepare consumers for the prioritizing required in a post-industrial condition."[212]

. Collectivist vs. Individualist Perspective

"The consumer of the future, functioning in a fragile, closed system must be brought to a new self-conception based upon the collective good and a realization that collective behavior, which may limit individual behavior, is at times necessary."[213]

. Rights and Responsibilities Perspective

"Probably the single most important concept that the transitional consumer must learn is that consumers have rights

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[210] Ibid., p. 10.

[211] Ibid., p. 11.

[212] Ibid., pp. 11-12.

[213] Ibid., p. 12.

and responsibilities in the marketplace and that consumer rights must be honored by sellers if a just exchange is to occur."[214]

- Interdisciplinary Perspective

"The consumer educator must draw upon the content and perspectives of such disciplines as economics, marketing, home economics, sociology, psychology, law and political science if he or she is to provide the previously described wholistic approach in consumer education programs."[215]

- New Marketplace Interaction Modes Perspective

The post-industrial marketplace will require new modes of interaction for efficient and responsible consumption. ". . . consumers have become 'active learners' in marketplace transaction, using information which they had demanded (such as unit pricing and open dating, flammability standards, care labeling, credit information, gasoline consumption ratings, nutrition labeling, and an increasing number of private publications, e.g., Consumer Reports, Consumer Research, Money), to guide their decisions in the marketplace.

". . . . As the economy reaches post-industrial status and consumers actively learn in the marketplace as they seek their rights, brand loyalty will diminish due to an increase in the use of market information. . .

"Shortages will also cause new modes of behavior for consumers. . . . The post-industrial consumer must. . . learn to plan his purchases further in advance, to evaluate substitute materials carefully, and to conserve what he already has.

"Lastly, consumers of the future will need to become proficient in the area of services purchases. . . consumers will spend an increasing percentage of their income on services, including education, government, communication, recreation, health, finance, trade, and utilities."[216]

- Time as a Resource Perspective

"Post-industrial consumers will recognize time as the most limited of all resources and will consciously acknowledge that the administration of consumption requires someone's time. Such consumers will be increasingly open to the use of electonics to

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214 Ibid., p. 12.

215 Ibid., p. 14.

216 Ibid., pp. 14-18.

> gain time, to products which require minimal service and to consumer education approaches which emphasize skill development as opposed to fact accumulation. Such basic consumer skills as negotiation, decision-making, and complaining will be of greater importance than ever before."[217]

Stampfl concludes that, "In a very real sense, then, consumer educators must assume the role of change agents and facilitate the development of a post-industrial mentality among consumers today which is consistent with the social, economic, and political imperatives of tomorrow."[218]

Consumer Elements by Consumer Life Cycle Stage

Stampfl has "expanded the traditional family life cycle to include additional stages for analyzing individual and family economic behavior."[219] The following figure represents this expansion of the traditional analysis.

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[217] Ibid., pp. 18-19.

[218] Ibid., p. 19,

[219] Stampfl, Ronald W., "Family Research: Consumer Education Need in the Family Life Cycle," Journal of Home Economics, Spring, 1979, p. 22.

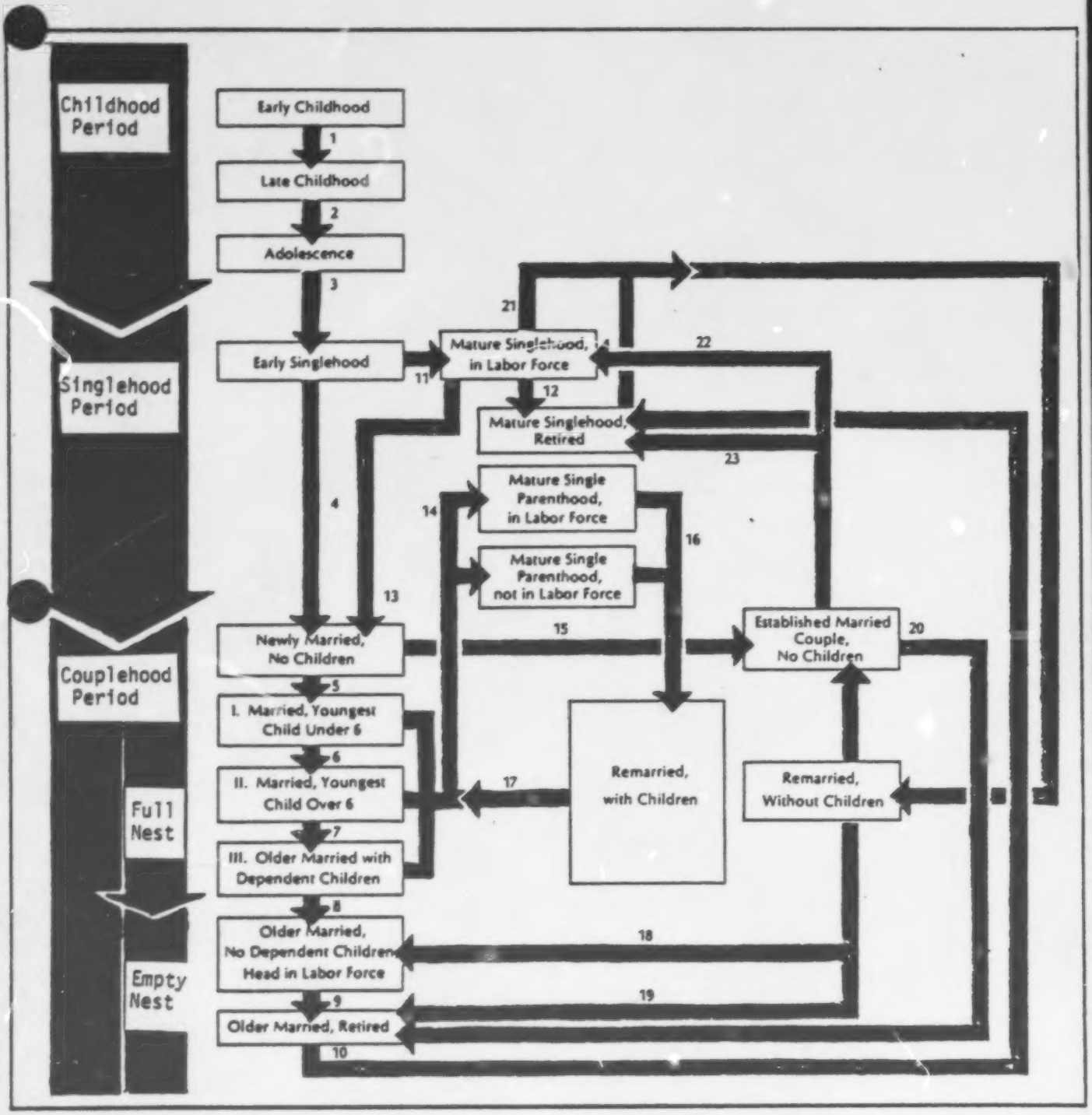

Figure 1: Life Cycle Periods, Stages, and Pathways[220]

[220] Ibid., p. 23.

Stampfl points out that the figure includes three life cycle periods -- childhood, singlehood, and couplehood -- and numerous life cycle stages. He explains that:

> ". . . . Linkage numbers indicate potential life cycle pathways. Changes 4-10 are usually cited as the family life cycle. However, the family life cycle can take numerous pathways.
>
> "All pathways begin at the same point: the childhood period. It encompasses the beginning of life to the age of majority or predominant economic self-sufficiency, whichever comes first. . . On reaching majority or self-sufficiency, individuals enter either of the two remaining life cycle periods. They move back and forth between the periods, depending on individual values and other factors, including work and procreation choices, marital stability, and spouses' life span.
>
> "For example, an increasingly common life cycle pathway -- the never-married career-dominant pathway -- is composed of changes 1, 2, 3, 11, and 12. Or the pathway may consist of changes 1, 2, 3, 11, 13, 15, 20, and 10. This pathway includes childhood; early singlehood followed by mature singlehood to, for example, age 35; couplehood without children; retirement; and late singlehood resulting from loss of spouse."[221]

The following table presents Stampfl's analysis of Consumer Elements by Consumer Life Cycle Stages. Six variables, called consumer elements, have been arrayed down the side of the table. Stampfl states that:

> "These variables cut across the conceptual and empirical boundaries of many disciplines concerned with the consumer, the familial contexts of consumption, and education. The matrix created by cross-classifying consumer life cycle stages against the identified consumer elements provides a first approximation of an answer to the central question of what needsto be known. The matrix also identifies when something needs to be known and implies why this is so. The entries in the 78 cells of the matrix are based upon a review of the relevant empirical literature. . . upon application of material found in consumer education sources. . . and upon the life experiences and speculative insights of consumer educators, students, and the author."[222]

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[221] Ibid., p. 22-23.

[222] Stampfl, Ronald W., "The Consumer Life Cycle," The Journal of Consumer Affairs, Vol. 12, No. 2, Winter, 1978. p. 216.

TABLE 2
Consumer Elements by Consumer Life Cycle Stage

Consumer Element	Childhood	Adolescence	Early Singlehood	Mature Single	Newly Married Couples (young, no children)
Consumer Characteristics	all needs provided by parents little or no understanding of marketplace marketplace limited to that of parents limited cognitive ability limited and unorganized product knowledge	basic needs provided by parents income increasingly provided through part-time work tastes and preferences evolving susceptible to peer pressure to conform limited product knowledge limited understanding of marketplace marketplace not solely limited to that of parents	values and priorities unclear, experimentation in life style and associated consumption highly mobile few financial burdens few assets recreation oriented fashion opinion leaders marketplace not limited by parents or legal restrictions due to age wide product knowledge but little depth	expectations of financial support by near relatives possible discretionary income typically high full marketplace accessible wide product knowledge in depth likely independent decision making	resolution of life style and values concerning consumption lack of financial planning financial condition better now than for near future high purchase of durables wide product knowledge
Typical Products & Services	toys clothes sweet treats games comic books	records bicycles some personal care products toys clothes sporting goods	first car basic home furnishings home electronic equipment vacations sport equipment education personal care products first use of credit groceries	tasteful home furnishings appliances travel hobby related purchases better restaurants savings for retirement housecondominium	home equipment durable furniture cars vacations insurance
Marketplace Concepts and Knowledge	money store needs; wants decision private property price ownership purchase transaction process advertising customer salesman or clerk	money management consumer information price/quality relationship economic competition rationality saving earning product assortment comparison shopping brands labels store types impulse buying consumer rights	sales tax income tax budget inflation costs of business operation deceptive practices credit interest on savings contract terminology owning vs. renting marginal utility consumer protection laws unit pricing; open dating universal product code	financial planning impact of inflation on budget and savings tax shelters investments warranties opportunity costs electronic funds transfer	warranties opportunity costs insurance as risk sharing saving as delayed consumption net worth insurance terms child rearing costs
Marketplace Skills	choosing from many alternatives transactional sequence ordering of wants	simple consumer information gathering simple price/quality analysis simple comparison shopping currency system mastered simple decision making process weights and measures conversion safe usage of products	simple problem solving priority setting using consumer reference material simple complaint resolution dealing with discrimination complex consumer information gathering dealing with sales people complex comparison shopping tax schedule completion simple budgeting credit management computational skills balancing a checkbook	complex problem solving complex price/quality analysis complex complaint resolution complex decision making complex budgeting for life goals investing energy audit of home	choosing health care professionals record keeping saving tax forms complex decision making-joint complex budgeting-joint price negotiation do-it-yourself skills
Typical Marketplace Problems	underdeveloped cognitive defenses to commercials wanting everything inability to articulate questions or get usable explanations from parents or teachers	identifying significant product differences weak understanding of value of money weak understanding of own tastes and preferences shoplifting temptations illicit markets (drugs, etc.)	mail order frauds determining most economical place to shop tenant/landlord disputes lack of experience in dealing with sellers choosing first apartment simple bargaining (cars, etc.) high mobility results in unfamiliarity with local marketplace lack of credit rating insurance terminology	renting or buying shelter complex bargaining gifting as a regular activity support in times of illness	lack of savings habits impulse buying mail order fraud mobility insurance planning bait and switch seller tactics assembly and operation of products
Level of Resources (time, income, human energy)	money limited by parents consumption time unlimited shopping energy limited by attention span only	some product experience some discretionary income (allowance, gifts, part time jobs) consumption time nearly unlimited shopping energy at high level	income rising consumption time plentiful shopping energy high	high disposable income likely time for administration of consumption limited since single person has dual role shopping energy decreasing	time beginning to emerge as constraint income good due to dual contribution shopping energy high

(Some enteries are tentative and subject to further research; repetitive entries often omitted due to space limitation.)

[223] Ibid., pp. 214-215.

Full Nest				Empty Nest			
I Youngest Child Under Six	II Youngest Child Six or Older	III Older Married Couples with Dependent Children	IV Single Parenthood	I Older Married Couples; No Children at Home Head in Labor Force	II Older Married Couples; No Children at Home Head Retired	Older, Solitary Survivor, in Labor Force	Solitary Survivor, Retired
home purchase of primary concern low liquid assets conversion to one income likely most susceptible to advertising and new products dissatisfied with financial condition change in life style due to children expansion of family influences on purchasing	change in family risk patterns and concern for security needs still expanding faster than income consumption time scheduling difficult some wives working less susceptible to advertising larger unit purchases	aging parents recycling of products to younger siblings while protecting individual needs heavy replacement of durables more wives working hard to influence with advertising wide product knowledge in depth likely some children get jobs	administration of consumption difficult product knowledge of spouse lost division of action with dual parental role	pre-retirement planning home ownership at peak typically at best financial position not interested in new products financial assistance to children	drastic drop in income want to keep home product knowledge becoming obsolete	income still good but likely to sell home independent decisions now required due to absence of spouse	drastic drop in income independent decisions now required due to absence of spouse
first house day care community services more important—schools, hospitals baby food toys fast food energy use high beer baby furniture	apartment increases due to expressed preferences rapid usage of clothing larger house or remodeling larger size packages music lessons and instruments fast food	food expense at peak dental services new furniture coats magazines non-necessary appliances boats recreational vehicles college expenses	home security devices buyable recreation for children housekeeping services day care education for reentry to job market	travel recreation contributions self education vacations home improvements savings for retirement home security devices hobby related purchases	medical care and products which aid sleep, health, digestion leisure time equipment not formerly owned due to time constraints household services for aging vacation home restaurants	household services restaurants similar to mature singlehood except for gifts to grown children hobby related purchases	mass transportation same product needs as other retired
regulated sales estate planning traffic violations extension of past of children wills real estate taxes	combination of previous cells	funeral costs (for parents) tax shelters combinations of previous cells updating of product knowledge to keep up with teenager wants	community services combination of previous cells must acquire complementary market knowledge of spouse	updating of product knowledge usually necessary	community resources medicare medicaid social security	community resources must acquire complementary knowledge of spouse	community resources medicare medicaid social security nursing homes
consumer education of children, i.e., teaching skills investing planning for retirement complex budgeting for life goals complex decision making complex problem solving complex complaint resolution complex procurement analysis home buying	nutritional efficiency in food buying tax law usage complex decision making energy audit of home	planning for children moving out probate executor of will tax planning home redecoration aiding children in college choice	must acquire complementary skills of spouse	disposal of excess possessions consolidation of assets	management of paperwork in transfer payments and insurance interaction with social security system	must acquire complementary skills of spouse	managing food preparation and diet must acquire complementary skills of spouse interaction with social security system
choosing first home recommended on credit mobility still a problem lack of understanding financial implications of having children finding repair services consumer billing errors	choosing "move-up" house unexpected expenses make budgeting difficult purchase quantity and sizes hard to predict home maintenance	financing college for children clothing costs automotive insurance for teenage dependents transportation for all family members	support in times of illness legal aid in cases of divorce, financial settlement changes in credit rating possible	home too large resizing of all purchases gifting as a regular activity	obsolescence of marketplace skills and knowledge home improvement schemes lack of willingness to accept publicly provided goods and services if needed	obtaining household services support in times of illness reading labels may be difficult	exploitation of loneliness by in-house sellers indecisiveness support in times of illness self-medication quasi-professional products such as hearing aids lack of mobility
time constraints evident income rising for household head but family income may decrease if spouse not employed shopping often considered "a hassle" and energy low	time constraints evident income likely to be stable unless wife returns to work shopping energy minimized	time needed for administration of consumption is maximum leisure time limited income stable shopping routine and energy low	substantial drop in income possible time most constrained shopping energy devoted to necessities	discretionary income higher due to children's departure leisure time suddenly high shopping energy may increase	leisure time excessive income often limited shopping energy low	similar to mature singlehood except for income level of widow long absent from labor force is typically much lower than for widower	leisure time excessive income often limited shopping energy low

Note to reader: place on right side of previous page to form two page "continuous" chart.

According to Stampfl, "The consumer life cycle approach. . . provides an analytical framework which may be useful for consumer educators, researchers, and policy makers in trying to organize and comprehend the complexity of economic consumption and its implications for individuals, families, and public policy." [224]

The Prosumer Concept

Toffler, in The Third Wave, devotes an entire chapter to "The Rise of the Prosumer."[225] He writes:

> "During the First Wave[a] most people consumed what they themselves produced. They were neither producers nor consumers in the usual sense. They were instead what might be called 'prosumers.'"[226]

He sees the rise of a new prosumer in such phenomena as:

- do-it-yourself physical examinations and medical treatments,
  for example
  - -breast self-examinations
  - -self-administered pregnancy tests
  - -home use of blood pressure cuffs or checking of blood pressure in coin-operated machines
  - -rising home use of ear-cleaning devices, nose and throat irrigators and specialized convalescent products

- self-help groups,
  such as
  - -Overeaters Anonymous
  - -Parents Without Partners
  - -"bereavement groups"
  - -Parents of Gays and Lesbians
  - -Widow to Widow

  note: Toffler states that "Frand Riessman and Alan Gartner, co-directors of the New Human Services

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[224] Ibid., p. 217.

[225] Toffler, Alvin, Ch. 20, "The Rise of the Prosumer," The Third Wave, William Morrow and Co., Inc., New York, 1980, pp. 282-305.

[a] Footnote: agricultural phase of civilization

[226] Ibid., p. 283.

> Institute, estimate that in the United States alone there are now over 500,000 such groupings -- about one for every 435 in the population -- with new ones forming daily. Many are shortlived, but for each one that disappears, several seem to take its place."[227] He adds: "The self-help movement is thus restructuring the sociosphere. Smokers, stutterers, suicide-prone people, gamblers, victims of throat disease, parents of twins, overeaters, and other such groupings now form a dense network of organizations that mesh with the emerging Third Wave family[b] and corporate structures."[228]

- self-service, in *such areas as*
  - -telephone direct dialing
  - -gas station "fill-up"
  - -electronic banking
  - -some retail stores, for example, shoe stores, grocery markets
  - -home assembling of furniture, toys, etc.

- increased home repairs and construction by non-professionals
  - -carpentering
  - -plumbing
  - -electrical work

- proliferation of how-to courses and books

Toffler indicates that the consumer is being increasingly drawn into the production process. Manufacturers today recruit customers to help design products according to their needs.[229] He adds that:

> "Today members of Computer-aided Manufacturing International (CAM-I) are hard at work classifying and coding parts and processes to permit the full automation of production. . . ultimately a customer will be able to feed his or her specifications into a manufacturer's computer directly."[230]

Robert H. Anderson, head of the Information Services Department at

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[227] Ibid., p. 285.

[b] Footnote: postindustrial family

[228] Ibid., p. 286.

[229] Ibid., p. 290.

[230] Ibid., p. 291.

the RAND Corporation and an expert on computerized manufacturing explained that: "The most creative thing a person will do 20 years from now is to be a very creative consumer. . . Namely, you'll be sitting there doing things like designing a suit of clothes for yourself or making modifications to a standard design, so the computers can cut one for you by laser and sew it together for you by numerically controlled machine. . . ."[231]

A movement toward a much closer relationship between the consumer and production is a definite trend with far-reaching implications. Toffler states that the market "is a direct, inescapable consequence of the divorce of producer from consumer. Wherever this divorce occurs the market arises. And wherever the gap between consumer and producer narrows, the entire function, role, and power of the market is brought into question."[232]

At this point, one can only speculate about the eventual results of the changing relationship between market and consumer. Certainly, prosuming involves "the 'de-marketization' of at least certain activities and therefore a sharply altered role for the market in society."[233] New workstyles and life arrangements may be outcomes; Toffler sees the rise of the "electronic cottage" [c] as related to the rise of the prosumer. New life styles based on production for exchange and production for use, to an equal extent, will become practical.[234]

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[231] Quoted in Toffler, op. cit., p. 291.

[232] Ibid., p. 293.

[233] Ibid., p. 293

[c] Footnote: "a return to cottage industry on a new, higher electronics basis, and with it a new emphasis on the home as the center of society." (Toffler, op. cit., p. 210.)

[234] Ibid., p. 294.

Toffler envisions a generation:

> "brought-up on part-time paid work as the norm, eager to use their own hands, equipped with many cheap mini-technologies in the home, forming a sizable segment of the population. Half in the market, half out, working intermittently rather than all year round, taking a year off now and then, they might well earn less -- but compensate by supplying their own labor for many tasks that cost money, thus mitigating the effects of inflation."[235]

Toffler points out that a new, more wholistic conception of our economy will need to be developed -- a conception that includes both the sector which comprises the work people do for themselves and the market or exchange network sector. This will involve redefining such terms as: productivity, efficiency, income, welfare, poverty, and unemployment.[236]

In light of Toffler's analyses and predictions regarding the rise of the prosumer, an article in the Madison, Wisconsin Capital Times, June 30, 1980 is of interest.[237] Cook discusses the growing popularity of "bare-bones" grocery stores which elimnate many of the usual services. Customers select products from their packing cartons and bag their own groceries. Sales are often "cash only." In the "warehouse" grocery stores, prices for national brands are generally 15 to 20 percent lower that those in conventional operations.

Use of Generic Products

Along with the increasing patronage of the no-frills stores, there

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[235] Ibid., p. 295.

[236] Ibid., pp. 296-300.

[237] Cook, Louise, "No-frills stores growing in popularity," The Capital Time , Madison, Wisconsin, June 30, 1980, p. 3.

has been an increase in the use of generic food and drug products. Industry estimates indicate that they account for between five and 15 percent of grocery store sales.[238]

A survey of 430 consumers who have tried generic products conducted by Better Homes and Gardens magazine showed that 26.5 percent still buy all the generic items they have tried, 19.6 percent are no longer buying any generic items, and 47.5 percent continue to buy some of the items they have tried. Of those consumers buying generics, 5.5 percent had incomes under $10,000 to $14,999; 20.4 percent had incomes of $15,000 to $17,999; 21 percent had incomes of $20,000 to $24,999; and 35.8 percent had incomes of $25,000 and up.[239]

Coupons and Refunds

Not unrelated to prosumerism is today's extensive use of coupons and refunds -- not only in food stores, but, increasingly in other business establishments, including restaurants. Refunds on purchase of cars, trucks, and a variety of household items are commonplace.

Susan J. Samtur, in Cashing In at the Checkout, explains how she increases her buying power by "using the labels, coupons, money-saving box tops and proofs of purchase that manufacturers offer to promote their products."[240] She describes her "super-shopping" methods and claims that this is a best bet in fighting inflation.

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[238] Ibid., p. 3.

[239] "Repurchase of Generic Items," Supermarket News, March 10, 1980, pp. 4 and 8.

[240] Samtur, Susan J. with Tad Tuleja, Cashing In at the Checkout, Warner Books, New York, 1979, Preface.

Newspapers offer aid in "super-shopping." For example, The Capital Times in Madison, Wisconsin carried information on where to write for cash-off coupons and refund forms. The June 30, 1980 issue of the newspaper described a "refund of the day" worth $3.00 and gave information about 16 other refund offers on cosmetic and other personal products.[241] The Capital Times for July 8, 1980 carried eleven cash-off coupons and four "free gift with purchase" offers. The Wisconsin State Journal, July 9, 1980 published 55 cash-off coupons and four "free gift with purchase" offers.

Cash-off coupons, refunds, and free gift offers are phenomena that can not be ignored in consumer education. It appears that they are here to stay and may contribute to the fight against inflation -- depending on one's shopping habits, particularly the time spent in planning and preparing for purchases.

Discount offers belong in the same general category of special offers. Taking the best advantage of discounts also requires planning ahead.

The author, shopping for a *single person family,* has used cash-off coupons for about two years, spending about one hour a week planning purchases and clipping coupons, and has effected a saving on purchase of about five to six percent. She believes that greater savings could be effected, without "super" efforts, with some increase in time spent on planning and preparing for shopping.

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[241] "Where to write for $$ coupons," The Capital Times, Madison, Wisconsin, June 30, 1980, p. 3.

Changing Consumer Values

In a talk at the 1980 Agricultural Outlook Conference in Washington, D.C., Hogan said that

> "We are ending the 1970's with new perceptions of economic scarcity and a growing awareness that our energy-intensive consumption patterns are too expensive to maintain.
>
> ". . . . as the balance between income and expenditures is disturbed and as families face significantly higher fuel bills as well as larger pricetags for other consumer goods, they will find new wisdom in the values of conservation, frugality, and ecoconsciousness, i.e., an ecological orientation."[242]

Hogan suggests that the adjustments that families may make in their financial management may include: "(1) rescaling or changing the level of consumption, (2) increasing the efficiencey of their resource use, and/or (3) expanding their income."[242a] These adjustment options may or may not be feasible for families in relation to present patterns of consumption, employment of family members, and presence or absence of crisis situations in family life.

In summary, Hogan concluded that:

> "Today's management patterns are increasingly complex. They involve resource conservation, development of new patterns of consumption, more equitable participation of family members in household and labor market work, and a better understanding of the ecological system in which we live. . . . Also, they involve choices about fairness in sharing scarce resources.
>
> "Families will be challenged to examine the values that underlie their consumption patterns and to develop new solutions for improving their quality of family life. Adjustments

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[242] Hogan, M. Janice, "Family Adjustments in Financial Management," Talk at the 1980 Agricultural Outlook Conference, Washington, D.C., p. 1.

[242a] Ibid., p. 1.

in financial management based on sharing and cooperation, a renewed commitment to conservation, and simplicity of life-style are recommended."[243]

Need for Emphasis on New Political and Economic Realities in Consumer Education

Although certain political and economic realities as content for consumer education may be inferred from the foregoing discussion, or, in some instances, are clearly specified, this section is included to point up their growing importance as content. These include "the depletion of resources, pollution of the environment, growing service needs, the growing influence of government, greater social controls, negative tax payer responses, and continuing inflationary pressures."[244] Monsma and Bannister emphasize that, "The context of analysis for these problems must be global, recognizing the increasing interdependence of all nations and their peoples" and "These concerns must be addressed if consumer education is to deal realistically with the context of consumer decisions."[245]

The Consumer and Energy Shortages

In a report of a study of consumer adaptation to energy shortages, Curtin stated that, "Until more is known about how consumers adapt to changing price and supply conditions for such a basic commodity as energy, little guidance can be given for devising public policy so as to best achieve efficient and effective programs for consumer conservation."[246]

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[243] Ibid., p. 6.

[244] Monsma and Bannister, op. cit., p. 24.

[245] Ibid., p. 24.

[246] Curtin, Richard T., "Consumer Adaptation to Energy Shortages," paper, June, 1976, p. 1. (An initial version of the paper was presented at the Eighty-Third Annual Convention of the American Psychological Association, Chicago, 1975).

He described a personal interview survey[247] conducted by the Survey Research Center at the University of Michigan in the Autumn of 1974 which sampled 1,400 representative family units within the coterminous United States. The respondents were asked to what extent they had engaged in conservation of gasoline, electricity, and home heating during the energy shortages of the preceding winter. More than half of the respondents said that they had reduced their consumption of heat, electricity, and gasoline at least "somewhat" below the previous year's level. Less than one respondent in five reported no conservation at all.

After being asked about the extent of their past conservation, respondents were asked how difficult they thought it would be for them to reduce their families' use of heating, electricity, and gasoline if the energy situation should become worse again. A majority reported that it would be difficult to conserve energy further. In fact, 26 percent said that it would be "very difficult" in relation to heating; 20 percent said "very difficult" for electricity, and 33 percent for gasoline. On the average, only one in ten respondents said that it would not be difficult at all to reduce future energy consumption.[248]

Curtin concluded that, "A more complete picture of people's views on energy conservation would show then that a majority of adult Americans believed that demands for energy must be curbed by consuming less, and that in response to the energy crisis during the winter of 1973-74 conservation

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[247] Ibid., p. 2. The study, under the direction of Burkhard Strumpel, was financed by a grant from the National Science Foundation.

[248] Ibid., pp. 4-5.

was widespread. Nonetheless, the prospect of future conservation was viewed as problematic and a difficult course of adjustment."[249]

Hogan wrote on "Changing Our Energy Behavior" in May, 1978 Journal of Home Economics:

> "Using an ecological model, we can think of the family as an energy-driven system. From an ecosystem perspective, family members are linked to the natural environment through energy flows. Families are dependent on flows of energy from utility companies and automobile service stations to fuel their mechanical world.
>
> "Energy consumption data reveal that about one-third of the energy in this country is consumed by the household sector for residential and automobile use. How much family members consume and how they choose to substitute human energy for mechanical energy are strategic choices that will have implications for years to come.
>
> "Although there has been a significant movement toward decreased energy consumption in some individual and isolated cases, in reality, energy conservation has hardly begun. Home economists are in a unique position to help families reassess their energy-related behavior. We have looked at and will continue to look at energy and developing energy programs. . . these programs must take into account the fact that some resources are finite, some are nonrenewable, and some are not biodegradable."[250]

Hogan points out that "energy-related decisions are present in just about everything we do."[251] For example, in making decisions about housing, travel, and cleanliness, energy considerations are very much involved.

She reports that, "In the United States we use double the amount of energy we used 30 years ago, double the amount consumed in most European countries. . . Our country has 6 percent of the world's population and

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[249] Ibid., p. 5.

[250] Hogan, M. Janice, "Changing Our Energy Behavior," Journal of Home Economics, May, 1978, pp. 18-21.

[251] Ibid., p. 21.

uses 30 percent of the energy."[252] Questions of ethics and morality are implicit in these facts.

"100 Ways to Save Energy" were listed by Stewart and Moss in the May, 1978 Journal of Home Economics.[253] They suggested energy-saving ideas in four categories: "In the Winter," "In the Summer," "Any Season at Home," and "Any Season Away From Home." Most of the ideas are rather obvious, common sense ones. Some of the ideas for saving energy in each of the four categories follow.

In the Winter[254]

- Install a humidifier. You can then tolerate a lower thermostat setting.
- Change furnace filters often.
- Keep the thermostat below 68° F. (20°C). When you leave the house, set it back to 60°F (15.5°C); for longer periods (such as for a winter vacation), set it at 55°F (12.8°C).
- However, do not let the temperature drop below 65°F (18.3°C) in the winter if there are infants or elderly in the home. There is danger of hypothermia (chilling that produces a low body temperature), which is dangerous for the very young and the very old, and can be fatal.
- Tape draperies to the wall if there is a chance they might cover air vents, or use inexpensive air deflectors.

In the Summer[255]

- Set your thermostat in the summer at 78°F (25.5°C) to 80°F (26.6°C), a figure recommended by utilities and engineering

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[252] Ibid., p. 21.

[253] Stewart, Marjorie S. and Willodean D. Moss, "100 Ways to Save Energy," Journal of Home Economics, May, 1978, pp. 33-36.

[254] Ibid., pp. 33-34.

[255] Ibid., p. 34.

groups. Never set the thermostat more that 15° F (8° C) below the outside temperature.

- Use vertical louvers or awnings to deflect sun on the windows. Keep draperies or blinds closed on sunny exposures and keep the lights low.

- Use outside clothesline ("solar dryers") to dry your clothes.

- Garment style is an important consideration. Still air acts as an insulator, keeping body heat in. To dress coolly, choose a garment that does not keep air spaces near the body. The openings at the neck, waist, wrists, and ankles should be large so that air can circulate and carry heat away from your body as you move.

Any Season at Home[256]

- Use less highly processed food. Each step in production, processing, and marketing (packaging, for example) requires more energy use in the food factory.

- Do not be an "oven peeper." Save energy by turning off the electric or gas burners and the oven a few minutes before cooking is completed.

- Bake in glass or ceramic dishes and reduce oven setting by 25° F (14° C).

- When baking in aluminum foil, turn the dull side to the outside.

- Keep the refrigerator clean, particularly the inside, condenser coils, fans, and motor.

- Take quick showers instead of tub baths. Shower as if the water is nearly exhausted. Wet yourself, turn off the water, soap yourself, then turn on the water for a rinse. Some residents of Western United States have been doing it this way for years.

Any Season Away From Home[257]

- Protest to businesses that maintain their premises at temperatures that are too hot in winter and too cold in summer. Write to the managers; suggest that employees dress appropriately for moderate temperatures.

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[256] Ibid., p. 36.

[257] Ibid., p. 36.

- Promote educational and legislative efforts in energy conservation.
- Consider indirect as well as direct energy costs when buying and using goods and services. The energy required to manufacture goods and services accounts for half or more of that used in a single-family house. Use fewer throw-away articles. Do not discard workable or repairable appliances just to change style or color.

Hayes, in the May, 1978 Journal of Home Economics presented a persuasive case for solar energy as our most attractive energy source.[258] He stated that:

> "After examining the myriad constraints facing energy growth and the sweeping social consequences produced by energy choices, I believe that it will become apparent that our most attractive energy source is the sun. Solar energy can be tapped directly as sunlight, or indirectly as wind, water, hydro-, or plant power.
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> "Past efforts to tap the solar flow have been thwarted by unreasonable economic biases. Environmental cost of conventional fuels, for example, have been largely ignored until recently. If reclamation were required of strip mining companies, if power plants were required to stifle their noxious fumes, if oil tankers were prohibited from fouling the oceans with their toxic discharges, if nuclear advocates were forced to find a safe way to dispose of longlived radioactive wastes, conventional power sources would cost more and solar equipment would be more economically competive. As such costs have been increasingly 'internalized,' conventional sources have grown more expensive and solar alternatives have consequently become more credible."[259]

It is Hayes' opinion that the move to widespread use of solar energy in socially desirable and technically possible. He says that, "If the path is not easy, it is nonetheless the only road worth taking."[260]

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[258] Hayes, Denis, "The Transition to a Post-Petroleum World," Journal of Home Economics, May, 1978, pp. 22-25.

[259] Ibid., p. 25.

[260] Ibid., p. 25.

Electronic Fund Transfers[261]

A 1977 report of the National Commission on Electronic Fund Transfers points up the importance of new services of depository institutions that affect the traditional payment methods of check and currency. The report[262] states that:

> "EFT (electronic fund transfer) is an integral part of the broad technological change involving telecommunications and computers that has been underway throughout the world. Along with other industries, banking has become increasingly dependent upon computers. Until recently, these have been used behind the scenes where they did not affect how most Americans transact their financial affairs. In the past few years, however, depository institutions have begun to offer their customers services that affect the traditional payment methods of checks and currency. In many places throughout America:
>
> - "Shoppers may pay for goods at retail stores by using a card inserted in an electronic terminal. Their accounts are charged electronically. .
> - "Bank customers may deposit or withdraw cash at any time of the day or night by using their cards in an unattended machine.
> - "Employees may have their pay deposited directly into their checking or savings accounts without ever receiving a paycheck. The employer makes the deposits by delivering a magnetic tape to the depository institution.
> - "Families may pay monthly installments on mortgages or loans or pay regular premiums on insurance by preauthorized charges to their checking or savings accounts.

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[261]Footnote: Electronic fund transfers is a payments system in which the processing and communications necessary to effect economic exchange, distribution of services incidental or related to economic exchange, are dependent wholly or in large part on the use of electronics. (p. 1 following reference).

[262]EFT and the Public Interest, a report of the National Commission on Electronic Fund Transfers, Washington, D.C., February, 1977, pp. 1-2.

These current trends may be expected to continue in the foreseeable future. Indeed, an expansion of EFT services may be anticipated. Information regarding EFT is essential content in consumer education.

Home Computer Use

Home computer use is expected to increase significantly as computers get smaller and easier to use and as the price drops. Tad Pinkerton, a University of Wisconsin professor of computer science says that "In a time of rising prices, computers are an anomoly. The cost is going down."[263] He, along with other computer specialists, predicts a "computer revolution" that will affect the home considerably.

A computer, coupled with "canned" or already written programs, can make instantly available information on checkbook balances, budget plans, investment returns, and other information usually kept in a filing system. futher, the home computer has educational, recreational, and, a variety of other uses including such possibilities as calling up a list of specials being offered at the grocery store and menus that would make use of those specials, and the catologing of information about people -- addresses, phone numbers, birthdays, and the like. As a tool to aid the consumer, the home computer will become increasingly significant, hence should be of interest to the consumer educator.

The Ethics of Consumption

Stampfl discusses multi-disciplinary foundations for a consumer code of ethics in the Proceedings of the American Council on Consumer

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[263] Quoted in Kundell, Ann, "Homes Head for 'Computer Revolution,'" Wisconsin State Journal, Section 3, p. 1, April 14, 1980.

Interests 25th Annual Conference Proceedings.[264] Each of eight disciplines basic to the study of consumer affairs was analyzed according to: (1) its basic perspectives, (2) its central concepts, and (3) its disciplinary application. The disciplines included economics, marketing, home economics, sociology, law, humanistic psychology, environmentalists/futurists literature, and political science. Each discipline was characterized according to the three descriptors which were then used to derive or infer plausible disciplinary positions on consumer rights and responsibilities.

The analysis for home economics follows.

[264]Stampfl, Ronald W. "Multi-Disciplinary Foundations for a Consumer Code of Ethics," American Council on Consumer Interests 25th Conference Proceedings, San Antonio, Texas, April 25-28, 1979, pp. 12-19.

TABLE 3:[265] Home Economics

Basic Perspectives	Some Central Concepts	Application Outcome
Assumes the desirablity of applying scientific principles to various aspects of family living such as child development, family managment and economics, decisions, foods, clothing and housing Assumes desirability of educating individuals, families, and organizations in making intelligent personal and policy decisions concerning family living.	. Consumer and family policy . Consumer economics . Consumer education . Family decision making . Family economics . Family resources . Family service objective . Home management . Specific product orientation	knowledge of family processes and technology and an aid to individuals, families, and organizations in decision making concerning family living increase level of living

Derived Positions on Consumer Rights & Responsibilities

to choice	to information	to safety	to be heard
right: consumer has right to choose any product which helps maximize household efficiency responsibility: consumer has responsibility to evaluate alternatives in terms of family objectives, functional attributes, and personal values.	right: consumer has right to an adequate amount of objective information and education in order to rationally evaluate alternatives in terms of the household and/or family responsibility: to seek out adequate information and education in order to achieve household and/or family objectives	right: consumer has right to minimum safety standards and right to information about any potential hazards responsibility: to learn proper use and potential misuse of products purchased and to exercise reasonable caution	right: consumer should be allowed convenient recourse in the case of purchases of defective products responsibility: to consider purchase decisions thoroughly enough to prevent return except in the case of defective merchandise; to communicate market dissatisfaction to appropriate individuals

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[265] Ibid., p. 15.

Based upon his analyses of consumer rights and responsibilities, Stampfl has arrived at a proposed code of ethics of consumers,[266] as follows:

1. Consumers should strive to make market choices which maximize personal or family functional and/or socio-psychological utility from assortments of legal sellers based upon an analysis of needs. Chosen products should not be environmentally negative and their use should not infringe on the rights of other consumers.

2. Consumers should strive to expose themselves to all available information prior to marketplace choice and make a reasonable effort to determine its true meaning. Such information should be utilized in a rational, independent manner to arrive at a balanced decision which weighs personal/family utility against potential negative social or environmental impacts.

3. Consumers should strive to know and understand any physical risks associated with product usage, to learn proper use and potential misuse of products by following seller's usage instructions, and to utilize all products in only those ways which do not infringe on the physical, psychological, and environmental safety of other consumers.

4. Consumers should strive to communicate in an honest and fair manner significant facts, needs, satisfactions, and dissatisfactions regarding marketplace phenomena and participants to appropriate business people and government regulators. Such efforts may be individualistic and/or group oriented, as required to correct the perceived problem.

In addition to their responsibilities to self and family, individual consumers and families have responsibilities to society with respect to the social consequences of their consumer decisions. This reiterates a point made previously in this paper. Ethical and moral considerations related to *such topics* as the following are appropriately included in consumer education: energy conservation, increased consumption of human services, pollution of the environment, waste of material resources, inflation, questions of monopoly and free competition, and the increasing use of computers for business and personal uses.

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[266] Ibid., p. 13.

IMPLICATIONS FOR CONSUMER AND HOMEMAKING EDUCATION

Stampfl has offered some helpful thoughts on the role of home economics in helping families make the transition from an industrial society to a postindustrial society. He says:

> "Home economists must assume a major role in helping families make (this) transition. . . Most important in this transitional era is the question of family and individual values. The societal, political, economic, and environmental forces that are forming America's postindustrial future will have a direct effect on individual values, causing confusion and conflict while blurring the basis for decision. Since values are fundamental mainsprings of human behavior, home economists must become increasingly involved with value clarification as it applies to family resource usage."[267]

Home economics teachers should help students understand the role of values in decision-making, the sources of values, how the values held by individuals and families (and a society) impact on oneself and others, and how changing values trigger other changes.

Values in relation to the following[268] should be explored with students in helping them relate to the realities of the "transitional" and developing post-industrial eras:

- consumption level

  > "Postindustrial-age consumers will think it best to consume only as much as they need. . . "[269]

- ownership vs. usage

  > "Industrial-age consumers want to own as many of our

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[267] Stampfl, Ronald W., "The Postindustrial Consumer," op. cit., p. 28.

[268] Ibid., pp. 26-27.

[269] Ibid., p. 26.

culture's artifacts as possible. . . But a value change is on the forefront, with leasing, rentals, and shared facilities becoming increasingly common."[270]

. *disposability vs. recycling*

Industrial-age consumers value and use many disposable items. Postindustrial-age consumers will recycle and reject waste.

. *convenience vs. cost*

Postindustrial-age consumers will continue to value convenience, but they will want to know its cost.

. *concern for external costs*

Postindustrial-age consumers will have increased concern for the social and environmental costs of production and consumption.

. *quantity in life vs. quality in life*

"Higher gross national product, higher employment, and more automobiles per capita are accepted indicators of the industrial-age consumers' state of well-being. The postindustrial-age consumer, in contrast, will place great value on stable monitary values, job security and the ability to maintain an acceptable level of living."[271]

. *consumerism*

"In contrast to industrial-age consumers, who preceive that the way to increase level of living is to produce more (through their jobs), postindustrial consumers will view efficient and wise consumption of family resources as a path parallel to increased production, and will use both as a means of maintaining level of living."[272]

Stampfl's chart showing consumer elements by consumer life cycle stages suggests content for the consumer education aspect of Consumer and Homemaking Education. The section on "marketplace concepts and knowledge"

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[270] *Ibid.*, p. 26.

[271] *Ibid.*, pp. 26-27.

[272] *Ibid.*, p. 27.

is particularly helpful in this regard. Problems for classroom consideration and learning experiences are suggested by the "typical marketplace problems" and "marketplace skills" section.

Toffler's "prosumer" concept is congruent with Stampfl's ideas concerning the transitional and postindustrial consumer. Although Stampfl did not include "produce more of what they consume" under the consumer value profile of the postindustrial consumer, it seems to fit. With an increase in prosumerism, many new areas for choice become apparent and suggest problems for learning experiences as well as content of the Consumer and Homemaking Education program.

Current marketplace phenomena such as "warehouse" stores, generic products, cash-off coupons and refunds, gift offers, and discount offers should be analyzed for their advantages and disadvantages. For the most part, consumer educators and advocates decry the use of cash-off coupons and refunds and would have the savings from their elimination passed on to the consumer. But, as long as the coupons and refunds are realities, it seems to this writer that students should be taught about their uses by the producers and distributors as advertising methods and by consumers as one means to consider with respect to cutting costs of food and other household products.

Problems of energy shortages and energy conservation should be given emphasis in consumer education. Not only are methods of saving energy in the home appropriate content for Consumer and Homemaking Education programs, but also the reasons for conservation and the moral and ethical use of our energy resources.

Monsma and Bannister emphasize that:

> *"While continuing to provide a framework for making individual economic decisions, consumer education must broaden this framework to include analysis of the impact on these actions on the broader environment and consideration of the results of collective as well as individual action. Consumer education must therefore train consumer-citizens, persons who are able to analyze their consumer roles as participating and responsive citizens."*[273]

According to Remy, three instances in which the consumer and citizen roles fuse involve: the consumption of government services, collective economic decisions made through the political process, and individual consumption decision with social consequences.[274]

Both the rights and responsibilities of consumers should be made apparent in consumer education, along with the values that support these rights and responsibilities. These rights and responsibilities relate to both coping and questioning skills of individuals and larger social concerns regarding the consequences of consumer behavior for others.

Although instructional materials to develop consumer coping and questioning skills are abundant, those concerned with such topics as public goods and services, governmental regulation, human capital and action for improving consumer protection are given meager treatment. Whereas such instructional materials will undoubtedly be developed, at the present time the teacher must do a great deal of personal study in order to include such critical content in the curriculum. Indeed, the teacher must continue such study even after the instructional materials are available in order to keep up on changing problems and resources and

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[273] *Monsma and Bannister, op. cit., p. 25.*

[274] *Remy, Richard D., Consumer and Citizenship Education Today: A Comparative Analysis of Key Assumptions, Office of Consumer Education, U.S. Office of Education, Washington, D.C., no date.*

changing regulations.

Development of a "code of ethics for consumers" might serve as a culminating activity for a senior high school unit of study in consumer education. Stampfls' "code of ethics" is useful; however students may profit from developing their own.

Author's note: Forum magazine, published by the J. C. Penney Company for consumer educators, intends to include a series of articles by Ronald W. Stampfl and others in its Spring/Summer 1981 issue. This issue will focus upon consumer education in the 1980's.

HOME MANAGEMENT

Management has a fundamental role in helping families fulfill their purpose, defined by management specialists Deacon and Firebaugh as "the maintenance of members and...providing a setting for personal and interpersonal growth and development."[275]

Management is a central concept in Consumer and Homemaking Education. The concepts and principles of management should be taught directly as well as integrated in all components of the program. Management has been defined as "planning for and implementing the use of resources to meet demands."[275a]

Following is a relatively short discussion of recent research and writing in the field of home management that has meaning for Consumer and Homemaking Education programs.

Managerial Concepts

Writing in the Winter, 1979 Journal of Home Economics, Baker stated that:

> ". . .managerial concepts useful to families confronting the coming decades are the same ones that students have always learned. These primarily include planning and organizing for optimal resource allocation based on family goals, values, and standards of attainment. However, families will likely focus on their interdependence with their environment when working out their own well-being. Families and professionals dealing with families are also likely to focus on 1) significant environmental supports families need to manage well by humane and humanistic standards, and 2) families' ethical and ecological responsibilities in helping to sustain these environments."[276]

There are a number of good references which identify and clearly delineate the concepts of home management. As a teacher reference, Deacon and Firebaugh's Family Resource Management, Principles and Applications is particularly helpful in

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[275] Deacon, Ruth E. and Francille M. Firebaugh, Family Resource Management, Principles and Applications, Allyn and Bacon, Inc., Boston, 1981, p. 18.

[275a] Ibid., p. 29.

[276] Baker, Georgianne, "Management: A Vital Force for Families," Journal of Home Economics, Volume 71, No. 4, Winter 1979, AHEA, Washington, D.C., p. 29.

this regard.

Following are some of the basic concepts of management[277] that are included in a study of management in Consumer and Homemaking Education at secondary, post-secondary, and adult levels:

Management	- planning for and implementing the use of resources to meet demands.
Demands	- goals or events requiring action.
Goals	- value-based objectives that give direction and orientation to action.
Events	- unexpected or low probability occurrences that require action.
Planning	- a series of decisions concerning standards and/or sequences of action.
Standards	- measures of quantity and/or quality, resulting from the families' attempts to reconcile resources with demands.
Decision-making	- a process of evaluation in making choices or resolving alternatives.
Implementing	- Actuating plans and procedures and controlling the action - involves recognizing that a decision is needed, identifying, weighing, and choosing among resolving alternatives.
Values	- meanings related to what is desirable or has worth.
Resources	- means that provide the characteristics capable of meeting the demands placed upon the family by goals and events; resources may be classifed as human and material.

The foregoing concepts are applicable in every area of home and family life as well as in the world of work outside the home and at every stage in the life cycle. Hence, the concepts and their related principles and generalizations should be taught to a level of mastery -- that is, for thorough understanding and ability to make applications.

Time Use in Families

A number of home management studies have focused on the use of the resource of time. Walker reported on a study of time use in families at the National Council on Family Relations Annual Meeting in Boston in 1979.[278] Eleven states cooperated in supplying data for the study.

She reported on a doctoral study by Sanik, who compared time use of homemak-

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[277] As defined in Deacon and Firebaugh, op. cit., Chapter 4, pp. 29-37.

[278] Walker, Kathryn E., "Time Use in Families, A New Study: Implications for Understanding Everyday Life," paper presented at National Council on Family Relations Annual Meeting, Boston, August, 1979, 39 pp.

ers and spouses in 1977 with time use of homemakers and spouses in 1967.[279] Sanik found a slight increase in all household work time of all family members from 10.2 hours per day in 1967 to 10.8 in 1977. The change in time use of the homemakers was from 7.8 to 7.5 hours per day, a decrease of .3 hour or 18 minutes. But, spouses increased their time in household work from an average of one half hour per day to 1.7 - 2.2 hours. This last difference is statistically significant.[280]

Sanik's study also showed a significant reduction, from 1967 to 1977, in the time spent by homemakers in dishwashing and clothing care. However, there was a significant increase in the time spent on shopping.[281]

In the same study, there was an increase over the decade of the time spent by spouses on nonphysical care of family members. This difference was significant at the five percent level.[282]

In the 1967 study of time use in families, no significant relationship was found between the hours of homemakers' paid employment and the total family time contribution of husbands. Sanik's 1977 study found that there was still not a significant relationship (.05 level or above) between wife's employment and husband's time spent on household work. However, there was a difference at the ten percent level of significance. For two subtasks, meal preparation and dishwashing, there was a significant relationship — just as there was in 1967.[283] Walker states that:

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[279] Sanik, Margaret M., "A Twofold Comparison of Time Spent in Household Work in Two-Parent, Two-Child Households: Urban New York State in 1967-68 and 1977; Urban-Rural, New York-Oregon in 1977." Doctoral dissertation, Cornell University, 1979, reported in Walker, op. cit., pp. [illegible].

[280] Ibid., p. 9.

[281] Ibid., p. 9.

[282] Ibid., p. 9.

[283] Ibid., p. 10.

> "This difference, though statistically significant, could not be considered very dramatic. In both periods husbands' time use doubled from .1 hour per day to .2 per day for food preparation. That's an increase of six minutes per day for an activity in which the wife used 1.5 hours if she was not employed and 1.2 if she was."[284]

New York data collected for family time use studies led to the conclusion that the total work day of homemakers and spouses when wives were not employed and when they were has not changed very much in the last ten years. In both 1967 and 1977, homemakers not in the labor force spent about 58 hours per week on household work. This amounts to a little over eight hours a day. Employed homemakers spent about 42 hours per week, or slightly more than five hours a day, on household work.[285]

According to the New York findings, in 1967, spouses spent 1.6 hours per day on household work in two-child households with non-employed wives and 1.9 hours if wives were employed. In 1977, spouses' time was almost the same in both types of households (2.5 and 2.4 hours). Whether or not wives were employed, increased time in nonphysical care of children was apparent.[286]

Family time use data from Utah and Oregon showed considerable similarity to the New York findings. "There continues to be much evidence that we are a work-oriented society."[287]

Walker reported on a study by O'Neill which showed how time use of school children compared in 1967 and 1977.[288] An interesting difference was found with respect to comparisons between boys' and girls' time spent on household work. In

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[284] Walker, op. cit., p. 10.

[285] Ibid., p. 11.

[286] Ibid., p. 11.

[287] Ibid., p. 12.

[288] O'Neill, Barbara M., "Time-Use Patterns of School-Age Children in Household Tasks: A Comparison of 1967-68 and 1977 Data." Master's thesis, Cornell University, 1978, reported in Walker, op. cit., pp. 13-16.

1967-68 girls contributed about twice as much time as boys; in 1977, girls contributed only a little more than boys at six to eleven years, one-half hour more in the 12-14 year group, and a little less than boys at 15-17. Both boys and girls contributed more time in 1977 than earlier.[289]

The O'Neill study showed a surprising amount of the children's time was spent on shopping. This included travel time and perhaps much of it could be classified as social time. The increase in children's shopping time between 1967 and 1977 was statistically significant. It may be recalled that the same was true for adults.[290]

Between 1967 and 1977, the amount of time both boys and girls spent on food preparation increased significantly. Girls gave more time to dishwashing than did boys. In fact, there was a significant decade decrease in dishwashing time by 12-14 year old boys.[291]

A very small amount of time was spent by the children on clothing care and construction — and that by older girls.[292]

Some time went into cleaning, with 12-14 year old girls doing 18 minutes on average per day; that is more than two hours per week. For house maintenance, yard activities, and care of pets, the girls gave 25 minutes a day or almost three hours per week. The 15-17 year old boys spent over one-half hour a day in maintenance activities. Both boys and girls spent more time on maintenance in 1977 than in 1976.[293]

A study by Dorothy Goss, reported by Walker,[294] concerned the amount of par-

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289 Ibid., p. 13.

290 Ibid., p. 14.

291 Ibid., p. 14.

292 Ibid., p. 14.

293 Ibid., pp. 14-15.

294 Walker, op. cit., pp. 15-16.

ents' time shared with school-age children. She used 133 of the 210 households in the New York survey. Goss found that:

> "In those households the amount of time parents shared with their children varied tremendously from family to family. The average amount of time shared by mothers with one or both children was three and one half hours a day and the average amount of time shared by fathers was two hours per day."[295]

Only a small portion of this shared time was in household work. Some of it was in child care. However, the bulk of the shared time was spent in social and recreational activities combined with eating.[296]

Walker pointed out that values, personality, and a variety of behavioral patterns, as well as the constraints resulting from school, employment, and other commitments, combine to affect the amount of time shared by family members.[297] She adds, "The time-use data do provide a significant picture of behavior, but it is only a beginning step toward understanding that behavior.[298]

Goebel, Hennon, and Ackerman have attempted to answer the question, "Does household division of labor make a difference in perceived quality of family life?" through their study of time use in family life.[299] One aspect of the study was concerned with perceived quality of family life in relation to a more traditional or less traditional division of household work. "More traditional" meant that the wife spent more than the mean amount of time on household work calculated for the entire group of wives in the study. "Less traditional" meant that she was below the mean in time spent. No statistically significant differences were found. The authors state that:

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[295] Ibid., p. 16.

[296] Ibid., p. 16.

[297] Ibid., pp. 17-18.

[298] Ibid., p. 22.

[299] Goebel, Karen, Charles B. Hennon, and Norleen M. Ackerman, "Time Use In Family Life: Does Household Division of Labor Make a Difference in Perceived Quality of Family Life?" Unpublished paper, School of Family Resources and Consumer Sciences, University of Wisconsin, Madison, 1980, 4 pp.

> "Although no statistically significant relationships were found, our results are still of importance. They are important because they indicate that a family's quality of life is not just a simple function of their division of household labor. Thus, there is little support from these data for the position advocated by some that a more traditional division of household labor should be maintained in order to maintain the quality of family life, nor is there support for the position advocated by others that. . . .household labor should be reallocated to improve the quality of family life. Perhaps the satisfaction with family life is determined by other objective factors such as age, level of income or education, or such subjective factors as subcultural values about the way houshold work should be shared, the extent of affection between the spouses, or the stage of the family life cycle. These factors should be considered in future studies."[300]

Managing the Resource of Money

Fowler, in Graduating Engineer, a 1980 publication, stated that:

> "Lifestyles vary so widely these days that many of the old-fashioned budgeting rules no longer apply. For example, one advises spending no more than 25% of your net income on housing. Housing costs have risen so fast, especially in big cities, that few young people find that rule makes sense. In fact many persons starting on a career find they have to double up to save money on housing.[301]
>
> "Another rule of thumb is that you should save at least 10% of your salary after taxes — a good idea if you can exert the will power. In case of emergency you should build the equivalent of at least two month's salary in a savings account. For example, you might suddenly lose your job; you might become ill; you might want to marry and need money for furniture."[302]

He added that: "Never in history has budgeting, along with record-keeping for tax purposes, been so important and difficult. The reason is the fast pace of inflation."[303]

Winter, writing in the Journal of Consumer Affairs, suggests three broad alternatives for families in considering desired goals, many of which call upon money resources:

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[300] Ibid., p. 3.

[301] Fowler E.M., "How to Keep Fiscally Fit," Graduating Engineer, McGraw-Hill Publications, Winter, 1980, p. 105.

[302] Ibid., p. 106.

[303] Ibid., p. 106.

: "attempt to increase the amount of resources that it devotes to attaining a goal.

: "establish standards that adequately reconcile the goal to the level of resources available.

: "abandon the goal (possibly in favor of another alternative)."[304]

Paolucci suggests that:

> "The goal of striking a balance between people and resources could be achieved by creating a lifestyle based on the conservation ethic. This ethic would include reducing waste, recycling materials, adopting intermediate technology, becoming more labor-intensive, using resources prudently, and volunteering to live as simply as possible....
>
> "The transformation from abundance to frugality may be the most liberalizing event of the century. In this transformation, home economists have a significant part to play. They can support and counsel families to help them express a preference for some household management decisions and actions rather than others. Ideally families would base these preferences on critical examination of what ought to be rather than on unexamined acceptance of what is."[305]

At the present time, 37 states plus Washington, D.C. have specific laws or statewide policies that require or encourage "consumer education" in at least four general areas:[306]

> "1. Consumer *decision making*, including topics such as attitudes, values, and choice making.
>
> "2. *Economics*, including basic economics, "free enterprise," and/or consumer economics.
>
> "3. *Personal finance*, involving principles of buymanship and money management.
>
> "4. *Rights and responsibilities* of the consumer in the American economic system."

Home economics has been particularly responsive to the need and legislative mandates for increased consumer and economic education. The section of this pa-

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[304] Winter, Mary, "Managerial Behavior of Young Families in Pursuit of Single Family Home Ownership," The Journal of Consumer Affairs, Volume 14, No. 1, Summer, 1980, p. 84.

[305] Paolucci, Beatrice, "Energy Decisions and Quality Living," Journal of Home Economics, Winter, 1978, p. 23.

[306] Daly, Margaret, "What are the Schools Teaching Your Kids About Money?" Better Homes and Gardens, April, 1980, p. 19.

on "Consumer Education" is relevant to any discussion of money management as an aspect of home management.

Computers: The Next Major Home Appliance?

The home computer for use in year-round record maintenance, keeping track of checkbook balances, budgeting, investment information, and the like may be the next major home appliance. Microcomputers range in price from $800 to $1,200 — comparable to a high-quality TV or video tape system, whereas a few years ago the cost put the computer outside the realm of possibility as a home appliance for any but the most affluent. Most owners' manuals now are written for the firt-time user, thus helping to make the whole idea of the home computer more practical than in the past.

The computer as a home appliance to aid in the management of the home merits further consideration and study by home economists.

Managing in the 80's and Beyond

A number of specialists in home management have suggested a need for greater simplicity in life style in the decade ahead. This need arises because of resource scarcity and fluctuation, and the way in which resources are distributed, inflation, population increases, population changes (for example, the increasing number of older families and individuals who will be supported by a decreasing number of young and middle-aged workers and families), and changing family goals (an apparent new valuing of family and interest in spending time with family within the home).

Elgin and Mitchell, writing in the Futurist, refer to an emerging life style of "voluntary simplicity," a life style that consists of self determination, ecological awareness, material simplicity, and practical living and working environments.[307] This is not to be confused with a so-called back-to-nature movement.

[307] Elgin, D.S. and A. Mitchell, "Voluntary Simplicity: Life Style of the Future?" The Futurist, August, 1977, pp. 200-209 and 254-261.

Paolucci, in the Winter, 1978, Journal of Home Economics, stated that:

> "....Home economists must understand the relationship between fast-growing populations and fast-shrinking resources as well as most families' ignorance about how this relationship affects their lifestyle. Most of all, home economists must convince families that their decisions about values and resource use do make a difference.
>
> "Because families are instrumental in changing society, they must change their lifestyles and ways of using resources if we are to exist beyond mere survival."[308]

Teachers of home management need to be particularly and especially aware of social and ecological factors and changes in these which affect the home and family and their implications for home management content in Consumer and Homemaking Education.

Ellen H. Richards' creed is as relevant today as when it was written and it serves to inspire and suggest goals for the decade ahead. She stated that home economics stands for:

> "The ideal home life for today unhampered by the traditions of the past.
>
> "The utilization of all the resources of modern science to improve the home life.
>
> "The freedom of the home from the dominance of things and their due subordination to ideals.
>
> "The simplicity in material surroundings which will most free the spirit for the more important and permanent interests of the home and society."[309]

IMPLICATIONS FOR CONSUMER AND HOMEMAKING EDUCATION

The concepts, principles, and generalizations of home management are basic content in Consumer and Homemaking Education. This is content needed in every aspect of home and family life and in all vocations. It is important content at different periods in the life cycle and in all geographic areas.

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[308] Paolucci, op. cit., p. 22.

[309] Baldwin, K.E., The AHEA Sage, American Home Economics Association, Washington, D.C., 1949, p. 17.

Basic learnings in home management are needed as a foundation for acquiring more knowledge. For example, understanding the processes of planning and decision-making provides a foundation for more advanced learnings in managing a home -- or a business.

Chances that the basics of management will be learned to a level of mastery apart from direct instruction in school are not likely. Yet, these learnings are crucial, even for merely coping with life's daily demands. Hence, this area of Consumer and Homemaking Education is essential as a part of the program — both as a separate area of study and integrated in all other areas.

Recent studies of time use suggest that fathers may be playing a somewhat more active role in the family, especially with regard to nonphysical care of children. This is further support for parent education for boys and education in home management which includes consideration of values, goals, and time management.

The large proportion of women working outside the home, the likelihood that this situation will continue, and the fact that women, whether employed or not, still spend a great deal of time on household work give emphasis to a need for educating girls and women in all of the basics of management.

Studies reveal that children are involved to a somewhat greater extent than in the past with the work of the household. For one thing, they do more shopping, more food preparation, and more household maintenance. Boys, in particular, have increased their time spent on household work. The basic concepts and generalizations of home management should be taught both boys and girls for immediate application as well as for the future.

The critical social need for a life style of greater simplicity is a challenge to teachers of Consumer and Homemaking Education. Questions of "Why?" must be explored with students in arriving at the underlying value considerations of this social need both for families and the larger society. The practical questions of "How?" will follow.

NUTRITION AND FOOD

Food is a basic human need with which families are concerned. In fact, a recent study found that, despite an increase in away-from-home food consumption, it still remains that more than 80 percent of all food tonnage goes through the home.[310] Were this not true, a study of nutrition and food would still be important. But, that finding underlines the value of nutrition and foods as an area of study in any educational program focused on the family.

The field of nutrition and food is one in which research continuously yields new information which should be incorporated in educational programs aimed at improving the nutritional status of individuals and families and satisfying the desire for aesthetically pleasing meals. Food and nutrition have moral, ethical, political, ethnic, and religious dimensions which, for the most part, have been given limited attention in Consumer and Homemaking Education programs. However, as we give increasing attention to value bases in decision-making in Consumer and Homemaking Education and as we increasingly recognize the inter-relationships between the home and other social institutions, these dimensions will receive the increased attention that they deserve.

Given the importance of this aspect of the Consumer and Homemaking Education program and the fact that its knowledge base is constantly expanding, what recent research and thinking should become content for education in foods and nutrition as a part of Consumer and Homemaking Education in the 80s and beyond?

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[310] Stowell, Channing, "Marketers to Fight for Declining In-Home Sector as Food Consumption Patterns Change," Food Product Development, Volume 13, No. 12, December, 1979, p 97.

Recommended Dietary Allowances

The 1980 edition of the Recommended Dietary Allowances (RDA), published by the Food and Nutrition Board, National Academy of Sciences-National Research Council, introduces some important changes from the 1974 edition. The following tables present the recommended Dietary Allowances, Revised, 1980.

TABLE 4 Recommended Daily Dietary Allowances,[a] Revised 1980

Food and Nutrition Board, National Academy of Sciences – National Research Council

Designed for the maintenance of good nutrition of practically all healthy people in the U.S.A.

	Age (years)	Weight (kg) (lbs)		Height (cm) (in)		Protein (g)	Fat-Soluble Vitamins: Vitamin A (μg RE)[b]	Vitamin D (μg)[c]	Vitamin E (mg α TE)[d]	Water-Soluble Vitamins: Vitamin C (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg NE)[e]	Vitamin B_6 (mg)	Folacin[f] (μg)	Vitamin B_{12} (μg)	Minerals: Calcium (mg)	Phosphorus (mg)	Magnesium (mg)	Iron (mg)	Zinc (mg)	Iodine (μg)
Infants	0.0-0.5	6	13	60	24	kg × 2.2	420	10	3	35	0.3	0.4	6	0.3	30	0.5[g]	360	240	50	10	3	40
	0.5-1.0	9	20	71	28	kg × 2.0	400	10	4	35	0.5	0.6	8	0.6	45	1.5	540	360	70	15	5	50
Children	1-3	13	29	90	35	23	400	10	5	45	0.7	0.8	9	0.9	100	2.0	800	800	150	15	10	70
	4-6	20	44	112	44	30	500	10	6	45	0.9	1.0	11	1.3	200	2.5	800	800	200	10	10	90
	7-10	28	62	132	52	34	700	10	7	45	1.2	1.4	16	1.6	300	3.0	800	800	250	10	10	120
Males	11-14	45	99	157	62	45	1000	10	8	50	1.4	1.6	18	1.8	400	3.0	1200	1200	350	18	15	150
	15-18	66	145	176	69	56	1000	10	10	60	1.4	1.7	18	2.0	400	3.0	1200	1200	400	18	15	150
	19-22	70	154	177	70	56	1000	7.5	10	60	1.5	1.7	19	2.2	400	3.0	800	800	350	10	15	150
	23-50	70	154	178	70	56	1000	5	10	60	1.4	1.6	18	2.2	400	3.0	800	800	350	10	15	150
	51+	70	154	178	70	56	1000	5	10	60	1.2	1.4	16	2.2	400	3.0	800	800	350	10	15	150
Females	11-14	46	101	157	62	46	800	10	8	50	1.1	1.3	15	1.8	400	3.0	1200	1200	300	18	15	150
	15-18	55	120	163	64	46	800	10	8	60	1.1	1.3	14	2.0	400	3.0	1200	1200	300	18	15	150
	19-22	55	120	163	64	44	800	7.5	8	60	1.1	1.3	14	2.0	400	3.0	800	800	300	18	15	150
	23-50	55	120	163	64	44	800	5	8	60	1.0	1.2	13	2.0	400	3.0	800	800	300	18	15	150
	51+	55	120	163	64	44	800	5	8	60	1.0	1.2	13	2.0	400	3.0	800	800	300	10	15	150
Pregnant						+30	+200	+5	+2	+20	+0.4	+0.3	+2	+0.6	+400	+1.0	+400	+400	+150	[h]	+5	+25
Lactating						+20	+400	+5	+3	+40	+0.5	+0.5	+5	+0.5	+100	+1.0	+400	+400	+150	[h]	+10	+50

a The allowances are intended to provide for individual variations among most normal persons as they live in the United States under usual environmental stresses. Diets should be based on a variety of common foods in order to provide other nutrients for which human requirements have been less well defined. See p. 23 for heights, weights and recommended intake.

b Retinol equivalents. 1 Retinol equivalent = 1 μg retinol or 6 μg β carotene. See text for calculation of vitamin A activity of diets as retinol equivalents.

c As cholecalciferol. 10 μg cholecalciferol = 400 I.U. vitamin D.

d α-tocopherol equivalents. 1 mg d-α-tocopherol = 1 α T.E. See text for variation in allowances and calculation of vitamin E activity of the diet as α-tocopherol equivalents.

e 1 N.E. (niacin equivalent) is equal to 1 mg of niacin or 60 mg of dietary tryptophan.

f The folacin allowances refer to dietary sources as determined by *Lactobacillus casei* assay after treatment with enzymes ("conjugases") to make polyglutamyl forms of the vitamin available to the test organism.

g The RDA for vitamin B_{12} in infants is based on average concentration of the vitamin in human milk. The allowances after weaning are based on energy intake (as recommended by the American Academy of Pediatrics) and consideration of other factors such as intestinal absorption; see text.

h The increased requirement during pregnancy cannot be met by the iron content of habitual American diets nor by the existing iron stores of many women; therefore the use of 30-60 mg of supplemental iron is recommended. Iron needs during lactation are not substantially different from those of non-pregnant women, but continued supplementation of the mother for 2-3 months after parturition is advisable in order to replenish stores depleted by pregnancy.

113

311

Food and Nutrition Board, Recommended Dietary Allowances, Ninth Revised Edition, Washington, D.C., National Academy of Sciences, National Research Council, 1980, follows p. 185.

121

122

312

TABLE 5 Recommended Dietary Allowances, Revised 1980

Food and [illegible]on Board, National Academy of Sciences—National Research Council, [illegible]ington, D.C.

Estimated Safe and Adequate Daily Dietary Intakes of Selected Vitamins and Minerals[a]

		Vitamins			Trace Elements[b]						Electrolytes		
	Age (years)	Vitamin K (μg)	Biotin (μg)	Pantothenic Acid (mg)	Copper (mg)	Manganese (mg)	Fluoride (mg)	Chromium (mg)	Selenium (mg)	Molybdenum (mg)	Sodium (mg)	Potassium (mg)	Chloride (mg)
Infants	0-0.5	12	35	2	0.5-0.7	0.5-0.7	0.1-0.5	0.01-0.04	0.01-0.04	0.03-0.06	115-350	350-925	275-700
	0.5-1	10-20	50	3	0.7-1.0	0.7-1.0	0.2-1.0	0.02-0.06	0.02-0.06	0.04-0.08	250-750	425-1275	400-1200
Children	1-3	15-30	65	3	1.0-1.5	1.0-1.5	0.5-1.5	0.02-0.08	0.02-0.08	0.05-0.1	325-975	550-1650	500-1500
and	4-6	20-40	85	3-4	1.5-2.0	1.5-2.0	1.0-2.5	0.03-0.12	0.03-0.12	0.06-0.15	450-1350	775-2325	700-2100
Adolescents	7-10	30-60	120	4-5	2.0-2.5	2.0-3.0	1.5-2.5	0.05-0.2	0.05-0.2	0.1 - 0.3	600-1800	1000-3000	925-2775
	11+	50-100	100-200	4-7	2.0-3.0	2.5-5.0	1.5-2.5	0.05-0.2	0.05-0.2	0.15-0.5	900-2700	1525-4575	1400-4200
Adults		70-140	100-200	4-7	2.0-3.0	2.5-5.0	1.5-4.0	0.05-0.2	0.05-0.2	0.15-0.5	1100-3300	1875-5625	1700-5100

313

TABLE 6 Mean Heights and Weights and Recommended Energy Intake[a] Recommended Dietary Allowances, Revised 1980

Category	Age (years)	Weight (kg)	Weight (lb)	Height (cm)	Height (in)	Energy Needs (with range) (kcal)	Energy Needs (with range) (MJ)
Infants	0.0-0.5	6	13	60	24	kg × 115 (95-145)	kg × .48
	0.5-1.0	9	20	71	28	kg × 105 (80-135)	kg × .44
Children	1-3	13	29	90	35	1300 (900-1800)	5.5
	4-6	20	44	112	44	1700 (1300-2300)	7.1
	7-10	28	62	132	52	2400 (1650-3300)	10.1
Males	11-14	45	99	157	62	2700 (2000-3700)	11.3
	15-18	66	145	176	69	2800 (2100-3900)	11.8
	19-22	70	154	177	70	2900 (2500-3300)	12.2
	23-50	70	154	178	70	2700 (2300-3100)	11.3
	51-75	70	154	178	70	2400 (2000-2800)	10.1
	76+	70	154	178	70	2050 (1650-2450)	8.6
Females	11-14	46	101	157	62	2200 (1500-3000)	9.2
	15-18	55	120	163	64	2100 (1200-3000)	8.8
	19-22	55	120	163	64	2100 (1700-2500)	8.8
	23-50	55	120	163	64	2000 (1600-2400)	8.4
	51-75	55	120	163	64	1800 (1400-2200)	7.6
	76+	55	120	163	64	1600 (1200-2000)	6.7
Pregnancy						+300	
Lactation						+500	

[a] Because there is less information on which to base allowances, these figures are not given in the main table of the RDA and are provided here in the form of ranges of recommended intakes.

[b] Since the toxic levels for many trace elements may be only several times usual intakes, the upper levels for the trace elements given in this table should not be habitually exceeded.

[a] The data in this table have been assembled from the observed median heights and weights of children shown in Table 1, together with desirable weights for adults given in Table 2 for the mean heights of men (70 inches) and women (64 inches) between the ages of 18 and 34 years as surveyed in the U.S. population (HEW/NCHS data).

The energy allowances for the young adults are for men and women doing light work. The allowances for the two older groups represent mean energy needs over these age spans, allowing for a 2% decrease in basal (resting) metabolic rate per decade and a reduction in activity of 200 kcal/day for men and women between 51 and 75 years, 500 kcal for men over 75 years and 400 kcal for women over 75 (see text). The customary range of daily energy output is shown for adults in parentheses, and is based on a variation in energy needs of ± 400 kcal at any one age (see text and Garrow, 1978), emphasizing the wide range of energy intakes appropriate for any group of people.

Energy allowances for children through age 18 are based on median energy intakes of children of these ages followed in longitudinal growth studies. The values in parentheses are 10th and 90th percentiles of energy intake, to indicate the range of energy consumption among children of these ages (see text).

312 Ibid., p. 178.

313 Ibid., p. 23.

123

114

124

The RDA tables serve as tools for those developing nutrition education programs. It is important to emphasize that the RDA are "the levels of intake of essential nutrients considered, in the judgment of the Committee on Dietary Allowances of the Food and Nutrition Board on the basis of available scientific knowledge, to be adequate to meet the known nutritional needs of practically all healthy persons."[314] The RDA are not requirements for a particular individual, but are recommendations for average daily amounts of nutrients *consumed* by *population groups.*[315] With the exception of the allowances for energy, the RDA generally exceed the requirements of the majority of persons.[316]

The following aspects of the revised RDA are notable:[317]

- The concept, uses, and limitation of nutrient density are discussed:

  Nutrient density (nutrient content of foods per 1000 k cal of energy) is discussed as a way of relating essential nutrient intakes directly to energy intake. While this method is useful for some purposes, it has limitations. For persons whose energy intake is reduced, such as the elderly or those on weight-reducing regimes, it is important to select foods of high nutrient density and limit intake of foods that provide mainly energy (e.g., highly refined sugars, oils, fats, and alcohol).

- Updated average heights and desirable weights are incorporated in the table of recommended energy intakes.

- Essentially no changes have been made in the protein RDA.

- Terminology for expressing vitamins A, D, and E has changed from international units to unit weights. Warnings regarding toxicities of vitamins A and D are given.[318]

- The vitamin C recommended allowance has been increased from 45 mg to 60 mg daily for adults, with corresponding increments for other age groups.

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314 Ibid., p. 1.

315 Dairy Council Digest, National Dairy Council, Volume 51, No. 2, March-April, 1980, p. 10.

316 Ibid., p. 10.

317 Ibid., p. 1.

318 Ibid., p. 10.

- Minor changes are noted for thiamin, riboflavin, Niacin, vitamin B_6 and folacin allowances. Niacin is given as mg niacin equivalents in contrast to simply niacin as in the 1974 edition.
- For the first time ranges of estimated safe and adequate daily dietary intakes of vitamin K, biotin, and panthothenic acid are recommended.
- The allowances for calcium, phosphorus, and magnesium have not changed.
- With regard to trace elements,
    a. the amount of additional iron needed during pregnancy and lactation (30-60 mg supplements) is specified,
    b. increased allowances for iodine for most age/sex categories are shown,
    c. RDA for zinc are unchanged, and
    d. ranges of estimated safe and adequate intakes for copper, manganese, fluoride, chromium, selenium, and molybdenum are added.
- Recommended ranges of intake are presented for the electrolytes sodium, potassium, and chloride. The rather low range for sodium should encourage consumers to avoid excessive salt consumption.
- Several substances which are not known to be essential nutrients for humans are discussed. Obviously, for these, no allowances can be set.

Dietary Goals and Guidelines

In 1976-77, a set of National Dietary Goals (NDG) was issued by the Select Committee on Nutrition and Human Needs. For the first time the government set forth quantified recommendations regarding specific foods which the public should eat more or less of. A wave of protest followed and a second version, NDG-II, was issued, but the substance of the original NDG remained virtually unchanged. The following table gives the Committee's recommendations.[319]

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[319] The reference for this section is: Austin, James E. and John A. Quelch, "U.S. National Dietary Goals," Food Policy, Volume 4, No. 2, May, 1979, pp. 115-128.

Table 7: Recommendations of McGovern Committee report.

U.S. DIETARY GOALS

- To avoid overweight, consume only as much energy (calories) as is expended; if overweight, decrease energy intake and increase energy expenditure.
- Increase the consumption of complex carbohydrates and naturally occurring sugars by about 45% to account for about 10% of total energy intake.
- Reduce overall fat consumption from approximately 40% to about 30% of energy intake.
- Reduce saturated fat consumption to account for about 10% of total energy intake; and balance that with polyunsaturated and mono-unsaturated fats, which should account for about 10% of energy intake each.
- Reduce cholesterol consumption to about 300 mg a day.
- Limit the intake of sodium by reducing the intake of salt to about 5 g a day.

SUGGESTED CHANGES IN FOOD SELECTION AND PREPARATION

- Increase consumption of fruits and vegetables and whole grains.
- Decrease consumption of refined and other processed sugars and foods high in such sugars.
- Decrease consumption of foods high in total fat, and partially replace saturated fats, whether obtained from animal or vegetable sources, with polyunsaturated fats.
- Decrease consumption of animal fat, and choose meats, poultry and fish which will reduce saturated fat intake.
- Except for young children, substitute low-fat milk for whole milk, and low-fat dairy products for high-fat dairy products.
- Decrease consumption of butterfat, eggs and other high cholesterol sources. However, some consideration should be given to easing the cholesterol goal for pre-menopausal women, young children and the elderly in order to obtain the nutritional benefits of eggs in the diet.
- Decrease consumption of salt and foods high in salt content.

Source: Select Committee on Nutrition and Human Needs, Dietary Goals for the United States, U.S. Government Printing Office, Washington, D.C., 1977.

These dietary goals were evaluated by people who have a professional interest in the consequences that would follow from their adherence and people who might be considered experts in validating and recommending the goals in the first place: Table 8 represents the results of a survey of 1,472 individuals by the Marketing Science Institute and their response to the goals.

U.S. national dietary goals

Dietary goals \ Sample groups	Consumer activist	Food manufacturer	Food retailer	Farmer	Government programme administrator	Nutritionist (government)	Nutritionist (industry)	Nutrition academic	Other academic	Nursing profession	Other	Percentage respondents agreeing
% of sample	9.9	9.0	5.0	12.1	10.3	23.8	3.9	7.3	5.8	2.9	9.4	
Decrease consumption of butterfat, eggs & other high cholesterol sources	86	69	73	31	82	81	44	68	75	79	80	71
Decrease consumption of foods high in fat and partially substitute polyunsaturated fat for saturated fat	97	74	84	46	92	94	51	77	85	91	91	82
Decrease consumption of meat and increase consumption of poultry & fish	90	67	74	20	74	87	46	69	78	76	78	71
Decrease consumption of salt and foods high in salt content	97	83	88	63	93	94	84	82	95	88	90	87
Decrease consumption of sugar and foods high in sugar content	97	77	88	77	94	98	86	84	98	95	92	90
Increase consumption of fruits and vegetables, and whole grains	99	98	99	93	99	99	97	97	99	100	98	98
Substitute non-fat milk for whole milk	81	61	71	35	66	74	38	71	77	73	63	66
Average agreement on all goals	92	76	82	52	85	90	64	78	87	86	85	

Table 8: Percentages of respondents agreeing with dietary goals, by sample group.

Overall support is lowest for the following three goals:

1. decrease consumption of butterfat, eggs and other high cholesterol sources
2. decrease consumption of beef and pork and increase consumption of fish and poultry
3. substitute non-fat milk for whole milk

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320 Quelch, John A., and Alden G. Clayton, Nutrition and the Consumer: A Survey of Interest Groups, Special Report, Marketing Science Institute, Cambridge, Massachusetts, 1977, p. 16.

As a group, farmers were the least supportive of the goals (52%). A very interesting fact is the difference in support evidenced by nutritionists depending upon whether they were in the government, industry, or academia. The survey also focused on what actions the various groups perceived would lead to improved nutritional well-being. Among farmers, food manufacturers, and food retailers the largest area of agreement for intervention was in the field of *nutrition education*.

What seems very clear is that controversy runs high with respect to policy recommendations that affect food production and consumption. These controversies can be traced to scientific disagreement and also the economic threats that are perceived.

While RDA values focus on nutritional needs for maintaining good health, problems of nutritional deficiency are rarely encountered in the United States. Instead, current and future focus will be on problems related to overconsumption of some dietary components and interactions between nutrients and other aspects of our environment. Some metals in the environments that are considered to be toxic or damaging to human systems interact with essential trace elements. In addition, interrelationships between nutrients, especially trace minerals, is increasingly being studied.

In 1980 USDA and HEW jointly issued dietary guidlines for people in the United States. This was the first time that two major government agencies combined to recommend dietary practices for people in an effort to lower the incidence of degenerative disease that occurs in the United States. The recommendations were developed primarily to effect a lowering of the incidence of obesity, heart disease, high blood pressure and dental disease. These

guidelines are as follows:

USDA/HEW GUIDELINES

1. To assure an adequate diet eat a variety of foods daily.

2. Maintain ideal weight.
   To lose weight:
   Increase physical activity.
   Eat less fat and fatty foods.
   Eat less sugar and sweets.
   Avoid too much alcohol.

3. Avoid too much fat, staturated fat, and cholesterol.

4. Eat foods with adequate starch and fiber.

5. Avoid too much sugar.

6. Avoid too much sodium.

7. If you drink alcohol, do so in moderation.

The Food and Nutrition Board, National Academy of Sciences, issued a report entitled "Toward Healthful Diets"[321] in the same year. The Board was reluctant to say that all people needed to make dietary changes. A person's diet should be based on individual needs and restricting the diet of a person who did not have disease in the hope of preventing the disease did not seem appropriate at this time. The Board considered the evidence that the degenerative diseases could be linked causally to diet as weak at this time. Additional studies are underway to clarify relationships between diet and degenerative diseases of aging. The future should provide more enlightening information about these complex relationships. Even now basic research on the problems of aging processes in human beings is accelerating.

The Food and Nutrition Board recommendations are as follows:

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[321] Toward Healthful Diets, Food and Nutrition Board, The National Research Council, National Academy of Science, May 28, 1980.

FOOD & NUTRITION BOARD/NATIONAL ACADEMY OF SCIENCE

1. Select a nutritionally adequate diet from foods available and select as wide a variety as practical.

2. Adjust dietary energy intake and energy expenditure to maintain appropriate weight for height.
   If overweight:
   Decrease total food and fat intake.
   Increase physical activity.

3. If energy requirement is low, reduce consumption of foods such as alcohol, sugars, fats and oils which provide calories but few other nutrients.

4. Use salt in moderation, adequate but safe intakes are considered to range between 3 and 8 grams of salt daily.

Notice the similarities in the recommendation, but also notice the less restrictive suggestions as compared to the dietary goals. Nutritionists considered the percentage changes suggested in the goals as difficult for people to adhere to and as not very realistic for application. Benefits from following the pattern suggested by the goals have not been clearly determined. That is, if the goals are followed, there is no clear evidence that the degenerative disease afflicting our society will be substantially affected. The risk of increasing polyunsaturated fat intake and decreasing cholesterol consumption to 300 mg a day for life has not been determined, nor has the benefit.

Fiber

A great deal has been said about the importance of fiber in the diet. The Food and Nutrition Board of the National Research Council reports that:

"Low fiber intake has been implicated as an etiologic agent*

* causative factor

> in a number of chronic diseases, particularly those of the bowel. Diets throughout the world differ greatly in the amounts and types of fiber they contain. Some populations in which the incidence of coronary disease is low subsist on diets with a high fiber content. Coronary-prone and coronary-free populations, however, differ in many ways other than diet — in life expectancy, level of exercise, stress, smoking, and genetics. . .
>
> "Much remains to be learned about fiber analysis, fiber composition, and how different fiber components affect nutrient utilization, gastro-intestional function, and metabolic processes. Fiber contains . . . compounds that may interfere with micronutrient utilization. High fiber diets are reported to reduce the absorption of calcium, magnesium, zinc, and phosphorus."[322]

Eating Disorders

The Food and Nutrition Board of the National Research Council reports that, *"obesity. . .* or excessive fatness is the most common form of malnutrition among the well-nourished peoples of the world. It is recognized as a major public health problem because of its association with many serious chronic degenerative diseases."[323]

Data from the National Center for Health Statistics indicate that the prevalence of obesity rises sharply after age 30. At the peak, 39 percent of men and 50 percent of women are 10 percent or more overweight.[324] The incidence appears to be increasing.

Causes of obesity are obscure. The Food and Nutrition Board of the National Research Council reports that:

> "The precise etiology of obesity in man in unknown. The. . . statement that obesity is caused by the ingestion of more calories

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[322] Research Needs for Establishing Dietary Guidelines for the U.S. Populations, Food and Nutrition Board, The National Research Council, National Academy of Sciences, Washington, D.C., Washington, D.C., 1979, p. 31.

[323] Ibid., p. 7.

[324] Abraham, S. and C.L. Johnson, In preparation, Overweight Adults in the United States, Health Statistics, No. 51., National Center for Vital and Health Statistics, DHEW.

> than are expended in the same time period is factual, but is a statement of conditions required for deposition of lipid in fat cells rather than a statement of causes for the depositions. . . They (the causes of obesity) are intertwined with neurohumoral and metabolic factors that adjust appetite to energy expenditure as well as with psychological and sociological factors. Their understanding requires much additional research."[325]

Obesity in human beings "is associated with significant increases in mordibity and mortality from such chronic diseases as hypertension, diabetics, coronary artery disease, and gall bladder disease."[326, 327] On the average, death rates for the obese are higher than for those of normal weight. In all over-weight persons the likelihood of developing diabetes is about three times that of normal weight individuals; in those 25 percent or more above average weight, the likelihood is eight times that of those of normal weight.[328]

The Food and Nutrition Board of the National Research Council reports that:

> "Obesity represents a personal indicator of an imbalance between energy intake and energy expenditure. Obesity becomes a segregating condition for many who are, or become with excess body fat, more susceptible to the chronic degenerative diseases. Public health education addressed to weight control through diet and exercise programs may be an effective strategy for controlling the high incidence and mortality rates from these diseases. Although a recommendation for maintaining body weight appropriate for height and body build can be made without additional information, many research questions remain if programs for accomplishing this goal are to be effective.[329]

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[325] Research Needs for Establishing Dietary Guidelines for the U.S. Populations, op. cit., pp. 7-8.

[326] Keys, A., "Overweight and the Risk of Heart Attack and Sudden Death," In: G. A. Bray, ed. Obesity in Perspective, Fogarty International Series on Preventive Medicine, Vol. II, Part II, U.S. Government Printing Office, Washington, D.C., DHEW, NIH Publication, 1973.

[327] Kannel, W.B. and T. Gordon, Obesity and Cardiovascular Disease: The Framingham Study. In: Burland, Samuel and Yudkin, ed., Obesity. Churchill Livingstone, London, 1974.

[328] Research Needs for Establishing Dietary Guidelines for the U.S. Populations, op. cit., p. 8.

[329] Ibid., pp. 9-10.

Recently *anorexia nervosa* has claimed a great deal of attention. This is an eating disorder, accompanied by psychological problems, in which individuals starve themselves. Teen-age girls have been particularly prone to this disorder.

Bruch, in her work with both female and male anorexics, has recognized the following characteristics as uniform in cases of primary anorexia nervosa:[330]

1. distorted notions regarding body proportions and body concept

   The anorexic defends the emaciated condition as normal and right. Bruch thinks that unless this body concept is corrected, therapeutic treatment that succeeds in weight gain will be only temporary.

2. disturbance in the accuracy of the perception or cognitive interpretation of stimuli arising in the body, with failure to recognize signs of nutritional need

   The awareness of hunger and appetite in a normal sense seems absent. While the outstanding sympton is a lowered caloric intake, the whole eating pattern — preferences, tastes, manners is disturbed. While denying food to herself, the anorexic often forces food on people around her. A number of anorexics exhibit two stages with respect to food intake: a) noneating, which is defended, and b) excessive gorging in which they report feeling overcome by some complusion. At the same time they are very afraid of just this kind of lack of control.

   They exhibit hyperactivity and deny fatigue. This paradox may in part be explained by Bruch's observation:

   > "In most instances the food restriction at first does not look different from ordinary dieting, with the exclusion of all 'fattening' foods. The characteristic diet of an anorexic is relatively high in proteins. In this respect they differ

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330 Bruch, Hilde, Eating Disorders — Obesity, Anorexia Nervosa, and the Person Within, Basic Books, New York, 1973, pp. 251-255.

> from other starving people nutritionally, who invariably subsist with practically no protein. It seems probable that the startling and persistent alertness is in part at least related to this relatively high-grade nutrition."[331]

There is one behavior that is commonly observed during starvation and is not unique to the anorexic nervosa. From the famous Minnesota study conducted during WWII and other reports of starvation conditions it has been observed that starving people take a great deal of time eating the food that is available and they begin continuously to think about food. With anorexia nervosa, "Invariably they will eat more and more slowly, taking an hour or longer to finish a meal, however small, particularly when they are supervised."[332] While they will often push food onto others, Bruch finds that early during the illness the anorexic is reluctant even to discuss food at all with the psychiatrist. Although they may eternally be preoccupied with food, they exercise rigid control to ease eating, living with the fear of losing this control. All their manipulations with respect to food are the means to a specified end: "the relentless pursuit of thinness."

3. a paralyzing sense of ineffectiveness

They see themselves as acting only in response to the demands of other people. The one area they feel they can control is food intake, and yet even here there is the constant fear that this control cannot be maintained.

Obviously physiological problems often accompany this illness, and whereas Bruch does not think that weight gain is sufficient

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[331] Ibid., pp. 265-266.

[332] Ibid., p. 266.

theraphy, she does indicate that positive psychological steps can follow only from initially getting an increase in food intake. It seems that the most severe damage occurs when the individual engages in binges followed by self-induced vomiting, in conjunction with the use of laxatives and diuretics. In these cases there is often electrolyte imbalance. If this is severe enough the damage may be irreversible and death imminent.

Shifts in Food Consumption Patterns

The results of a National Household Menu Census done by The Market Research Corporation of America, covering the period July, 1977-June, 1978, indicate a decline in the *in-home* food consumption per household. Whereas some of this decline is attributed to a decrease in the average household size, a significant factor appears to be changes in the basic eating behaviors of people in the United States.[333]

The Menu Census was conducted among 4,000 households. For fourteen consecutive days each household kept a record of all food eaten by every household member and by any guests. To provide an annual view of food consumption, the sample spread evenly throughout the year.

With respect to meal occasions, the study found that breakfast is the meal eaten most frequently at home. Stowell reported that:

> "Eighty-six percent of all potential breakfasts are eaten in-home, more that 8 percent are skipped, and 5 percent are eaten away from home. In the past 10 years, per capita skipping of breakfasts increased 40 percent, and away-from-home eating increased 85 percent."[334]

Most frequently reported as eaten away from home was lunch. This reflects

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[333] Stowell, Channing, "Marketers to Fight for Declining In-Home Sector as Food Consumption Patterns Change," Food Product Development, Vol. 13, No. 12, December, 1979, pp. 95-98.

[334] Ibid., p. 96.

the fact that more women are employed outside the home. According to Stowell:

> "About 52 percent of potential lunches are eaten in-home, a decline of 13 percent per capita. Skipped lunches increased 25 percent per capita, bringing the total to 14 percent. More than 11 percent are brown bagged. Up slightly in ten years despite the decline in children, the brown-bag market has become more 'adult' in composition. Away-from-home has a 22.5 percent share, a rise of 20 percent per capita in ten years."[335]

The study found that 80 percent of dinners are eaten at home, a decline of six percent per capita since 1968. "Only 4 percent are skipped, down from 1968. Fifteen percent of all evening meals were eaten away from home, an increase of 50 percent per capita during that time."[336]

Across all age segments, away-from-home eating has increased. According to the findings of the Menu Census:

> "Those over 65 eat 9 percent of their meals away from home. The under six group consumes almost 12 percent of meals away from home; the 6 to 17 segment, 17 percent; 18 to 24 group, more that 16 percent; 25 to 44, 15 percent; and 45 to 64, about 13 percent. The largest rate increase occurred with children under 13 and adults over 65."[337]

With regard to snacking, a major departure from the past was found. In fact, for a recent five year period, a seven percent decline has been recorded.[338]

The Menu Census found a decrease in the number of dishes served per meal. In-home meals are becoming simpler.[339] Concerning *what* we eat, it was found that:[340]

- Wine and soft drinks have increased in in-home per capita consumption, whereas coffee and milk show in-home declines in excess of three times the norm. Coffee and milk failed to show increases in away-from-home consumption, but other beverages demonstrated substantial growth rates in away-from-home eatings. Tea and vegetable/fruit juices increased their share of in-home beverages consumed and showed per capita declines less than the total decline of in-home food eatings.

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335 Ibid., p. 96.

336 Ibid., p. 96.

337 Ibid., p. 96.

338 Ibid., p. 96.

339 Ibid., p. 96.

340 Ibid., p. 97

- All meat categories, except processed meats, showed substantial increases in away-from-home meals and snacks. For poultry and processed meats (franks, bologna, salami, sausage, etc.) the declines were less than that for total in-home eatings. Total fish, shellfish, and total meat (beef, pork and lamb) categories showed declines in share at rates in excess of twice the norm.

- Changes in meat consumption patterns were evidenced by tremendous increase in consumption of those kinds of products that combine meat with other ingredients, primarily starches and vegetables, to produce a finished dish.

- For items served primarily as side dishes, consumption of rice and pasta was up. End dish eatings of vegetables, potatoes, and non-meat salads were down.

- With regard to snacks and desserts, candy, cakes, cookies, puddings, gelatins, and ice cream showed a decline in consumption. Eating of yogurt, nuts, popcorn, and fruit increased.

- Total cheese consumption increased.

- Presweetened and hot cereals were used less in the home, but eating of non-presweetened cereals in the home increased.

- Consumption of eggs in the home continued to decline.

Given the increase in away-from-home food consumption, it still remains that more than 80 percent of all food tonnage goes through the home. "Even if the away-from-home trend were to double, it will be more than 30 years before the two markets are the same size."[341]

The December, 1979, issue of Food Product Development included a report on demographic changes which point to shifts in food consumption patterns.[342] The editors state that, "The nation enters the next decade with more than a majority of its population living alone or with a single roommate. . ." The report indicates that:

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[341] Ibid., p. 97.

[342] "Demographic Changes Point to Shifts in Food Consumption Patterns," Food Product Development, Vol. 13, No. 12, December, 1979, pp. 103-105.

> "Upper income persons living alone spent an average of $23.79 weekly on food in 1973-74, whereas those with lower incomes spent $15.45. Men living alone spent significantly more than women, $22.61 versus $16.04. The mean weekly expenditure of the group 65 and older, at $15.45, was statistically different from that of the other two age groups, $20.76 for those 35 and younger and $20.32 for those 36 to 65."[343]

Coupons and Refunds

In order to induce customers to buy their products, manufacturers offer incentives in the form of free sample, cents-off coupons, refunds, and free gifts. For the most part, these incentives are offered for food products. They are discussed in the section on Consumer Education.

Processing and Home Preparation of Food

In an article on "Nutrition on Food Processing," Chichester and Lee point out that the vitamin content of foods is not solely a function of the processing that occurs after harvesting. There is a wide variability in the vitamin and mineral content depending upon the seed strain.[344] This variability produces problems for processors and manufacturers of food products with respect to nutrient labelling.

Chichester and Lee stress that, in analyzing vitamin and mineral content of foods, it is not enough to know the quantity present. The methods of analysis should focus on determining the biological availability of the nutrients.

The most significant loss of vitamins occurs in the home preparation of food. For vitamin retention, high-temperature, short time cooking is indicated.

Protein is also affected by processing. The greatest loss of protein (either a decrease in the availability of essential amino acids, AA, or in the digestability of the protein) occurs when protein-rich foods are heated with carbohydrates.

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[343] Ibid., p. 103.

[344] Chichester, C.O. and Tung-Ching Lee, "Nutrition in Food Processing," Nutrition and World Food Problems, edited by Miloslav Rechcigl, Jr., S. Karger AG, and Basel Switserland, 1979, pp. 295-313.

Whereas cereal grains supply the most significant amount of the world's protein, these proteins generally are low in the amino acid, lysine. Unfortunately, from a processing viewpoint, lysine is the amino acid most susceptible to heat damage. This is in contrast with the lysine in animal protein. There is not an appreciable loss of lysine after normal cooking of animal protein foods.

Developments in Food Sources

Considerable attention is being given fish farming as a means of increasing the protein supply. In an article in August, 1979 Food Policy, Parker reported rather optimistically on the potential of fish farming. He sees as a major obstacle to its development political opposition from the capture fishery industry and agriculture.[345]

Krone, in an article in the September, 1979 issue of Food Policy,[346] indicates that there is considerable potential for increasing the supply of fish products available for consumption. He expects an increased demand in the future and suggests that productivity can be increased through:

1. better management and utilization of naturally occurring fish stocks
2. increased inland fish production
3. increased aquaculture development, and
4. elimination of wastage both at sea and in the processing, distribution, and storage of the fish.

Nash examined the politics and institutional obstacles that confront the development of aquaculture. In the August, 1979 issue of Food Policy he stated that:

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[345] Parker, R.G.B., "Fish Farming in Europe," Food Policy, Volume 14, No. 3, August, 1979, pp. 194-203.

[346] Krone, Wolfgang, "Fish as Food — Present Contribution and Potential," Food Policy, Volume 4, No. 4, September, 1979, pp. 259-269.

> "The special interest groups in the fishing industry, in sport fishing and in other recreational uses of water areas have all been reluctant to ease the passage of laws which will help an emerging competitor for water use."[347]

It appears that aquaculture's future as a significant food resource depends on legislative action to an extent possibly greater that any technological breakthroughs — granted that the industry's modernization and technological advances also are important to aquaculture's contribution to food supply.

Rawitsher and Mayer studied the nutritional outputs and the energy imputs in producing seafood. The energy use in seafood production varies greatly among the varieties of seafood. The researchers believe that the food industry should consider seriously the ratio of energy input to nutrient output in making their business decisions.[348]

In another report, Rawitsher and Mayer indicate that, depending on the technology utilized, the energy costs in aquaculture are quite variable. They found that, in fish farming, when the pumping of water is needed, it is always the highest energy input factor.[349]

Krill (eupharisiacea) as a potential protein source for the future in the United States was dicussed in the January, 1979 issue of Food Technology.[350] Krill are shrimplike euphausids (a form of planktonic crustacea). They feed on diatoms and, themselves, comprise the chief food of large filter-feeding whales, as well as many other fish. There are more than 90 species of krill, ranging in length from 3/8" to about 6". It is the Antarctic species, Euphausia superba,

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[347] Nash, Colin E., "Structure of U.S. Aquaculture," Food Policy, Volume 4, No. 3, August, 1979, p. 210.

[348] Rawitsher, Mary, and Jean Mayer, "Nutritional Outputs and Energy Inputs in Seafoods," Science, Vol. 198, No. 4314, Oct. 21, 1977, pp. 261-264.

[349] Rawitsher, Mary and Jean Mayer, "Energy Requirements of Mechanized Quaculture," Food Policy, Vol. 4, No. 3, August, 1979, pp. 216-218.

[350] Martin, Roy E., "Krill as a Protein Source," Food Technology, Volume 33, No. 1, January, 1979, pp. 46-51.

that is thought to be plentiful enough for harvesting. To date, most of the commercial interest in krill has been in Japan and Russia. Current food products using krill include:

1. precooked frozen krill blocks in Japan
2. krill tempura in Japan
3. freeze-dried drill as fish food in the U.S.
4. preserved or vacuum-dried krill as feed for aquaculture production
5. shrimp-flavored krill paste used as butter and cheese spread
6. freeze-dried krill as additive in powdered soups
7. krill paste as salad dressing in Russia
8. krill paste in sausage stuffed eggs and stuffed fish in Russia
9. frozed and dried raw krill in meatballs, ground meat, fish flours and cakes, fish soy sauce in Japan.

Martin estimates the annual availability of krill at 100-400 million tons—compared with the 70-80 million tons of all fish and shellfish harvested in 1977. Problems involved in developing krill as an important food item include the following:

1. concern about overexploitation's decreasing its availability
2. the poor keeping qualities of krill which means that processing needs to be done quickly (within three or four hours) requiring new on-board fish industry technology
3. international political decisions concerning harvesting rights since krill is found mostly in the antarctic
4. the processing of krill into economically feasible and commercially acceptable products.

According to Goddard and Matthew, two of the most consumed vegetables, potatoes and corn, have been the focus of research into increasing their protein quality.[351] The results of such research should be of interest to anyone concerned with programs to improve nutritional status.

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[351] Goddard, Mary S. and Ruth H. Matthews, "Current knowledge of Nutritive Value of Vegetables," Food Technology, Vol. 33, No. 2, February, 1979, pp. 72-73.

Toffler, in The Third Wave, reports that:

- At the Environmental Research Lab in Tucson, Arizona, shrimp are being grown in long troughs in greenhouses, alongside cucumbers and lettuce — with shrimp waste recycled to fertilize the vegetables.[352]

- In Vermont, experimenters are raising catfish, trout, and vegetables in a similar manner. Water in the fish tank collects solar heat and releases it at night to keep temperatures up. The fish waste fertilizes the vegetables.[353]

- At the New Alchemy Institute, chickens are raised atop the fish tank. Their droppings fertilize algae, which the fish eat.[354]

Toffler states that a report of 20-year trends in world food supply prepared by the Center for Futures Research at the University of Southern California "regards as 'virtually certain' new grain varieties which produce higher yields per acre on non-irrigated land — with gains as high as 25 to 50 percent."[355]

In Future Facts, Rosen reports the following new and improved food developments.[356]

- "Many future protein substitutes — like those derived from petroleum, algae, fish, or peanuts — may have unpleasant tastes. One remedy: Natural sweeteners, like artichoke hearts."[357]

- New food additives that the body doesn't absorb "may play a vital role in ending the food supply crisis in the developing nations of the world. Additives can make alternative sources of protein, such as fish meal, palatable and acceptable to people who have strong cultural biases against particular kinds of food."[358]

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[352] Toffler, Alvin, The Third Wave, William Morrow and Co., Inc., New York, 1980, p. 356.

[353] Ibid., p. 356.

[354] Ibid., pp. 356-357.

[355] Ibid., p. 357.

[356] Rosen, Stephen, Ch. 3, "Foods and Crops," Future Facts, Simon and Schuster, New York, 1976, pp. 131-166.

[357] Ibid., p. 140.

[358] Ibid., p. 143.

- "The preservation of certain foods by irradiation instead of refrigeration could cut their net cost to the consumer, because storage would be built into the food at the factory. Families might use smaller, and therefore less expensive refrigerators and freezers. These smaller units would reduce electric bills. . . .Irradiated foods could be helpful in underdeveloped countries with scarce refrigeration facilities."[359]

- Ralston Purina has developed a soy-based nutritive product that "can be used in powdered citrus and tomato-flavored breakfast drinks, liquid and frozen concentrated juice drinks, clear desserts, dietary beverages, baby foods, gelatins, beer, carbonated soft drinks, jellies, jams, and hard candies. It comes in dry and liquid form, and doesn't thicken products when used at recommended levels, usually two percent. At two percent, a seven-fluid-ounce bottle of orange soda will supply 20 percent of a young child's recommended RDA of protein, or 10 percent of an adults' needs."[360]

- "Peanut-flake foods — cheap, storable proteins — will supplement meats and other expensive foods in tomorrow's diet."[361]

- Commerce Department researchers have found it possible to fortify crackers with fish protein. "The crackers got high marks for nutrition, texture, taste and shelf-life."[362]

- "A team of scientists at the Massachusetts Lobster Hatchery on Martha's Vineyard have found that lobsters raised in captivity, in warm seawater, grow up to four times as fast as they do in nature." This suggests the possibilities of lobster farming.[363]

The foregoing are merely representative of recent developments in new and improved foods. Most such work is aimed at contributing to the solution of present and anticipated world food problems.

Moral and Political Aspects of Food

The problem of inadequate food for a large number of individuals in the world is one with both political and moral dimensions. Singer, in Food Policy —

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[359] Ibid., p. 144.

[360] Ibid., pp. 151-152.

[361] Ibid., p. 153.

[362] Ibid., p. 154.

[363] Ibid., p. 155.

The Responsibility of the United States in the Life and Death Choices, concludes that affluent nations like the U.S. can do something to reduce the number of people without adequate food and should do so, not out of charity, but as a moral requirement.[364]

Jerome, in the same publication,[365] points out that the simplistic solutions often attempted may not lead to the hoped-for consequence of improved nutritional status, but the opposite. She says that many people seem to equate malnutrition in other countries with a lack of economic and technological development. She examines the nutritional consequences of economic development and presents evidence that such a correlation does not always occur and that, in fact, the nutritional status of the people often deteriorates under such conditions.

Her studies lead her to conclude that primitive means of food gathering are not necessarily indicative of a nutritionally poor diet. She also concludes that

> ". . .change to a cash economy also means that a large part, if not the majority, of food is purchased instead of produced. The high cost of protein-rich foods often makes them prohibitive, thereby forcing the people into an affordable high carbohydrate diet which is often less nutritious than the original diet."[366]

Additionally, she found that with development, cash crops like coffee, cocoa, and cotton may be grown in the most fertile areas, leaving food crops to grow in less fertile areas.

As other writers have observed, the Green Revolution, while achieving

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[364] Singer, Peter, "Reconsidering the Famine Relief Requirement," Food Policy — The Responsibility of the United States in the Life and Death Choices, ed. Peter G. Brown, and Henry Shue, The Free Press, New York, 1977, pp. 36-54.

[365] Jerome, Norge W., "Nutritional Dilemmas of Transforming Economics," in: Food Policy -- The Responsibility of the United States in the Life and Death Choices, op. cit., pp. 275-304.

[366] Ibid., p. 295.

some success in raising overall food production, is energy intensive and often has a negative impact on small farmers and peasants who are unable to afford the initial costs to get started.

It would seem that it is a false and simplistic notion to believe that by merely increasing the economic purchasing power of people through aid designed to spur economic development the nutritional consequences are invariably positive.

In the United States, the escalating price of petroleum is fanning a demand for gasohol as an alternative to gasoline. Brown discusses the attendant dilemmas in the June, 1980 issue of The Futurist. He indicates that, "If alcohol fuels become popular, food farms may turn increasingly into fuel farms. But energy crops may yield a bitter harvest for the world's poor who are unable to compete with affluent motorists for agricultural products."[367]

Responding to Brown, a Democratic congressman from Iowa, Berkley Bedell, states that the choice is *not* food or fuel. He writes:

> "Opposition to alcohol fuel produced from grain seems to be based almost exclusively on the argument that it would 'divert good grain from the food markets to make motor fuel.' Such a statement is simply not supported by the facts. In the alcohol production process, none of the protein in the original grain is lost. On the contrary, because of the action of the yeast, the amount of protein is actually slightly increased. Only some of the starch in the grain is lost. Obviously the world is deficient in protein, not starch. New technological processes produce a high-protein food supplement that is suitable for human consumption. By putting agricultural lands that the government now pays farmers to idle back into production, we can actually increase our ability to feed hungry people while helping to mitigate our problems with liquid fuel supply."[368]

Obviously, the issues related to gasohol, and other alternative fuels, are

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[367] Brown, Lester R., "Fuel Farms: Croplands of the Future," The Futurist, Vol. XIV, No. 3, June, 1980, p. 27.

[368] Bedell, Berkley, "The Choice is *Not* Food or Fuel: The Midwest Strikes Back," The Futurist, Vol. XIV, No. 3, June, 1980, p. 27.

not simple ones, but ones with political, ethical, and moral dimensions. These are not only matters of concern to politicians but also to all citizens and all families.

According to the President's Commission on World Hunger, the world faces a global food shortage of critical dimensions in the next 20 years. The problems demand a significant increase in food production, starting now. Among complications is the fact that the water supply is decreasing.[369]

McCormick, in writing about icebergs as a solution to world water shortage, states that:

> "Water consumption is growing while the availability of fresh water shrinks. By some estimates, the oceans are rising at a rate of 2 feet per century, and as they rise coastal water wells become contaminated with salt water. The world's deserts are expanding, and pollution renders significant amounts of the world's fresh water unusable.
>
> "Water problems are not limited to poorer nations. In 1985, California, which grows 75 percent of this nation's vegetables and fruit, will lose 680,000 acre-feet (about 18.5 billion gallons) of the water it now draws from the Colorado River."[370]

McCormick describes an idea advanced by Joseph A. Connell for floating an iceberg from the Antarctic to Australia, or Baja California in Mexico, or perhaps India. She writes:

> ". . . . The purpose is reallocation of resources, a more equal distribution of the fresh and usable water from the places where it is the most bountiful but least used, to the places where it is scarcest but most needed.
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> "About 75 percent of the earth's fresh water is locked up in the arctic regions. The problem is how to get at it."[371]

Connell, who holds 80 worldwide patents and is considered an expert in the

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[369] McCormick, Lynde, "Could Icebergs Solve World Water Shortages?," reprinted from Christian Science Monitor, Wisconsin State Journal, Saturday, June 28, 1980, p. 12, Section 1.

[370] Ibid., p. 12, Section 1.

[371] Ibid., p. 12, Section 1.

field of cryogenics (science dealing with very cold temperatures) believes that the eventual delivery of icebergs to areas of need will be an effective means of helping to solve problems of water shortage. Trying this as a solution would carry with it a variety of political and ethical problems.

In discussing the world food supply and attendant problems and projections, Toffler states that:

> "Ultimately we may see the convergence of weather modification, computers, satellite monitoring, and genetics to revolutionize the world's food supply.
>
> "While such possibilities put no food in a hungry peasant's belly today, First Wave governments [8] must consider these potentials in their long-range agricultural planning, and must search for ways to combine, as it were, the hoe and the computer."[372]

IMPLICATIONS FOR CONSUMER AND HOMEMAKING EDUCATION

What do recent research findings and projections for the future regarding Recommended Dietary Allowances, dietary goals, and guidelines, eating disorders, shifts in food consumption patterns, processing and home preparation of food, developments in food sources, and moral and political aspects of food suggest for Consumer and Homemaking Education?

Certainly, meeting the food and nutritional needs of family members is a continuing problem. As new information regarding dietary needs and their satisfaction accrues, that knowledge should become part of the content of an educational program which addresses this, among other problems of the family. The teacher should be alert for the resolution of controversies among specialists regarding nutritional needs.

Caution should be exercised in teaching-learning situations where eating disorders are discussed. The teacher will wish to be certain that the sources

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[8] Footnote: Refers to governments of agricultural countries.

[372] Toffler, op. cit., p. 357.

of information consulted are reliable ones. According to need and interest, it may be advisable to use as resource persons medical or nutrition specialists in these disorders.

The home economics teacher should be aware that nutrition may also be taught in subjects such as health, general science, biology, and physical education. However, nutrition education as taught in home economics strives to go beyond the information level to actual use in the home and the marketplace throughout the life cycles of family members.

Guides to planning meals for more than one day is important content, as well as how to evaluate meals for nutritional completeness over a period of time. For example, how does a tuna casserole fit into a basic food guide? Lasagne? A McDonald's "Big Mac?" Then, how do these foods fit into the dietary pattern over a period of time?

Consumer buying of food in a nutritionally competent manner should continue to be stressed. For example, applying the information from the nutritional labeling to the total nutritional content of a meal; realizing the hidden content of prepared items such as soups, meat dishes, packaged entres, etc.; and recognizing the psychological effect of food advertising and being able to use it to advantage.

Shifts in food consumption patterns have implications both for teaching about nutrition and meal planning. With respect to eating away from home, increased emphasis may appropriately be given the problems of obtaining nutritionally adequate meals when one "eats out." Cost factors come into play with regard to food consumption patterns; these should be considered with respect to in-home and out-of-home meals.

Conserving the nutritional value of foods during preparation should be emphasized. Emphasis should also be given to preparation and nutrition in light of family ethnic traditions and culture. Such content promotes increased under-

standing and appreciation of and respect for differences among people.

Developments of food sources should receive attention in the program. Those that are closer in terms of realization, such as increased use of a variety of sea foods and of vegetable and grain proteins should receive more attention. Teaching for an awareness level should be adequate attention for those that may be more remote.

Increased attention should be given the moral and political aspects of food. Topics for discussion might include:

- *What is the nature of food waste in the United States? Why do we waste so much food? What are the implications of this waste for ourselves and others?*
- *What can individuals and families do to contribute to the solution of the problems of inadequate food for many people in the world? Why should families be concerned about this problem?*
- *With respect to its food and nutritional status, how do political decisions affect the family? (Specific, current examples will serve to illustrate.)*

TEXTILES AND CLOTHING

Although textiles scientists are doing important research on fibers and finishes and specialists in the social and psychological aspects of textiles, dress, and adornment are studying the history of textiles and apparel and their meaning and influences on self and others, the research generally has limited immediate application in textiles and clothing studies in Consumer and Homemaking Education at secondary, postsecondary, and adult levels. For the most part, it is of interest to the textiles and clothing industry and in university level studies.

Following is a discussion of selected studies and projections which are of interest to teachers of Consumer and Homemaking Education.

Textiles: Developments and Projections

As any current textbook on textiles points out, textiles can be divided broadly into man-made fibers and natural fibers, with cotton, wool, and silk being the major fibers in the latter category. Within the man-made fibers, the categories are: (1) man-made cellulose-based fibers such as rayon, acetate, and triacetate, and (2) synthetics, such as nylon, polyester, acrylics, polypropylene, and spandex. These synthetics have many trade names and the list is expanded by the numerous blends that are available.[373]

In a 1978 publication, Man-Made Fibers Fact Book, the statement was made that:

> ". . .it is the man-made fiber industry that must play the leading role in meeting America's present and future fiber needs. Looking back over the industry's history from (the) first plant that produced less than a million pounds of 'artificial silk' in 1910 to today's industry which produces more than eight billion pounds of fiber annually...accounting for 70% of all fibers used in America...it becomes quite obvious where the fibers of the future will come from."[374]

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[373] Lenox-Kerr, Peter, "Europe Pushes Fiber Development," Textile World, Volume 130, No. 4, April, 1980, p. 75.

[374] Man-Made Fibers Fact Book, Man-Made Fiber Producers Association, Washington, D.C., 1978, p. 7.

The following table which gives the date of the first commercial U.S. production of each man-made fiber is of interest.

Man-Made Fibers: First Commercial U.S. Production[375]

1910 - Rayon	1949 - Modacrylic
1924 - Acetate	1949 - Olefin
1930 - Rubber	1950 - Acrylic
1936 - Glass	1953 - Polyester
1939 - Nylon	1954 - Triacetate
1939 - Vinyon	1959 - Spandex
1941 - Saran	1961 - Aramid
1946 - Metallic	

Anidex, azlon, lastrile, novoloid, nytril, and vinal are other generic names for fibers but these are not currently produced in the United States.

Manfred Wentz, Professor of Textile Science, University of Wisconsin-Madison, speaking at the 1980 Laundry and Cleaners Allied Trades Association Manufacturers Conference,[376] stated that the trend from natural to man-made fibers will continue. He presented diagrams which showed the following breakdown of fibers consumed by U.S. mills, 1950 to 1976.

1950:

Cotton - 69%
Wool and Others - 9%
Man-Made Fibers - 22%

1960:

Cotton - 65%
Wool and Others - 6%
Man-Made Fibers - 29%

1970:

Cotton - 39%
Wool and Others - 3%
Man-Made Fibers - 58%

1976:

Cotton - 29%
Wool and Others - 1%
Man-Made Fibers - 70%

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[375] Ibid., p. 7.

[376] Wentz, Manfred, "Fabrics of the Future," 1980 Laundry and Cleaners Allied Trades Association Manufacturers Conference, Chicago, Illinois, November 19, 1980.

It has been projected that, by the year 2000, cotton will account for 15 percent of fiber consumption, wool for less than one percent, and man-made fibers for 85 percent.[377]

According to Pospisil, writing in Industry Week, "The majority view appears to be that synthetic fibers will capture an increasing share of textile production, although cotton industry spokesmen argue vehemently that the natural fiber will at least maintain its percent market share."[378]

Cooper, writing in The Textile Industry, expressed the belief that cotton will continue to suffer in the United States in competition with polyester.[379] In particular, although he expects cotton to maintain its present hold in the apparel and home furnishings markets, he expects losses in the industrial sector. Wool is expected to lose in all three areas.

The following predictions for the year 2000, regarding textiles, appeared in the July 24, 1978 issue of Industry Week:

- "Nations with low labor costs will manufacture and export a greater share of standardized, commodity textiles, while more highly industrialized nations will produce and export higher quality, more fashion-oriented fabrics, as well as nonwoven textiles and manmade fibers.
- "By the year 2000, home furnishings will be the largest textile market in terms of fiber consumption. Today, apparel consumes some 40% of all fibers; home furnishings, 30%; and industrial textiles, 24%. By 2000, the market shares will be: home furnishings, 37%; apparel, 36%; and industrials, 27%.
- "Use of nonwoven fabrics will grow markedly in home furnishings products such as drapes, curtains, sheets, and pillowcases. Nonwovens, however, will not penetrate fashion apparel by the year 2000."[380]

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[377] Pospisil, Vivian C., "Do Textiles Face a Fraying Future?" 2000: Future Facts, Part 8 of a Series, Industry Week, July 24, 1978, p. 39.

[378] Ibid., p. 41.

[379] Cooper, Sidney G., The Textile Industry: Environmental Control and Energy Conservation, Noyes Data Corp., Park Ridge, New Jersey, 1978.

[380] Ibid., p. 40.

Man-Made Fibers

The two major categories of man-made fibers are cellulosic fibers and non-cellulosic fibers.

The first man-made fibers were cellulosic. Cellulose, the fiberous substance of all plants, was used in developing these fibers. Today, the cellulose used comes almost entirely from cellulose derived from spruce and other soft woods. The generic names of cellulosic fibers are *acetate*, *rayon*, and *triacetate*.[381]

Non-cellulosic fibers are made from combining relatively simple raw materials into new substances from which fibers are extruded. These substances are known to chemists as long chain polymers because they are chains of like units of simple chemicals, chemically linked together end to end. The generic names of non-cellulosic fibers include acrylic, anidex*, aramid, azlon*, glass, lastrile*, metallic, modacrylic, nylon, novoloid*, nytril*, olefin, polyester, rubber, saran, spandex, vinal*, and vinyon. Those marked by an asterisk are not currently produced in the United States.[382]

Following are various fiber trademarks identified with their generic fiber names.[383]

Acetate	Ariloft
	Celanese
	Chromspun
	Estron
	Lanese
	Loftura
Acrylic	Acrilan
	Bi-Loft
	Creslan
	Fina
	Orlon
	Zefran

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381 Man-Made Fibers Fact Book, op. cit., p. 14.

382 Ibid., p. 14.

383 Ibid., pp. 50-52.

Aramid	Kevlar
	Nomex
Biconstituent Fiber	Monvelle
Fluorocarbon	Teflon
Metallic	Lurex
	X-Static
Modacrylic	Acrilan
	Elura
	SEF
	Verel
Nylon	Anso
	Antron
	Beaunit Nylon
	Blue "C"
	Cadon
	Cantrece
	Caprolan
	Celanese
	Cordura
	Courtalds Nylon
	Crepeset
	Cumuloft
	Eukaloft
	Enkalure
	Enkasheer
	Monvelle
	Multisheer
	Qiana
	Shareen
	Ulstron
	Ultron
	Vecana
	X-Static
	Zeflon
	Zefran
Olefin	Herculon
	Marvess
	Polyloom
	Vectra
Polyester	Avlin
	Blue "C"
	Caprolan
	Dacron
	Encron
	Fortrel
	Hollofil
	Kodel
	Lanese

Polyester (continued)	Quintess
	Shantura
	Spectran
	Strialine
	Textura
	Trevisa
	Twisloc
	Vycron
	Zefran
Rayon	Avril
	Beau-Grip
	Coloray
	Enkrome
	Fibro
	Xena
	Zantrel
Spandex	Lycra
	Monvelle
Triacetate	Arnel

Inasmuch as information on the general properties, uses, and care of various fibers is easily obtained, such information is not included here.

Comfort of Textiles and Clothing

There has been rather extensive research on the "comfort" of textiles and clothing. An article in the December, 1977, issue of Textile Progress presented a review of over 600 articles and studies on clothing comfort.[384] The authors indicated that the term, comfort, is "nebulous" and a definition in physical terms is "elusive." However, they did identify one general area of agreement.

> "There is general agreement that the movement of heat and water vapour through a garment are probably the most important factors in clothing comfort. . . and satisfactory thermal equilibrium is the most important single comfort criterion."[385]

Attempts to modify the heat transfer properties of a fabric have involved three factors: (1) thickness, (2) enclosed still air, and (3) external air movements. Moisture transport through fabrics has been manipulated in attempts to

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[384] "Comfort Properties of Textiles," Textile Progress, Volume 9, No. 4, December, 1977, pp. 1-56.

[385] Ibid., p. 1.

correlate it with perception of fabric comfort. Surface modification of hydrophobic fibers with hydrophilic finishes is one route taken by the textile industry to increase "comfort" at the fiber level.

The perception of clothing comfort is influenced by the size and fit of clothing. Although comfort relates primarily to a sense of "well-being," it is not only a matter of a psychological factor; physical processes, such as moisture evaporation and air movement are influenced by the cut of clothes. Clothing comfort is achieved when the complex interaction of physiological and psychological factors are correctly balanced.

The January, 1980, issue of Backpackers carried a report on "Insulation - The Thick and Thin of It." The authors discussed the role of insulation in maintaining body comfort and safety, particularly as related to outdoor clothing.

They defined insulation as "any material that you interpose between your skin and the environment to prevent or reduce heat loss."[386] They reported that:

> "In early clothing science studies, researchers found that the material out of which the insulating fibers were made caused little difference in the effectiveness of insulation. They tested such fibers as wool, cotton, kapok, down, feathers, and even steel wool. They found all worked equally well if they met certain conditions: The air spaces trapped between the fibers had to be very small, and the fibers had to fill the insulating space completely. They could not be compressed beyond a certain bulk density (about four pounds per cubic foot) or heat would be transmitted by conduction.
>
> "Researchers came up with a rule of thumb that still applies to today's conventional insulators like wool, cotton down, and most synthetics. *The thermal insulation of clothing is proportional to the thickness of the dead air*[h] *enclosed.* The materials themselves don't insulate. It is the dead air they enclose that does the work."[387]

Another rule of thumb is the following:

> *"The efficiency of clothing* (in regulating body temperature) *is*

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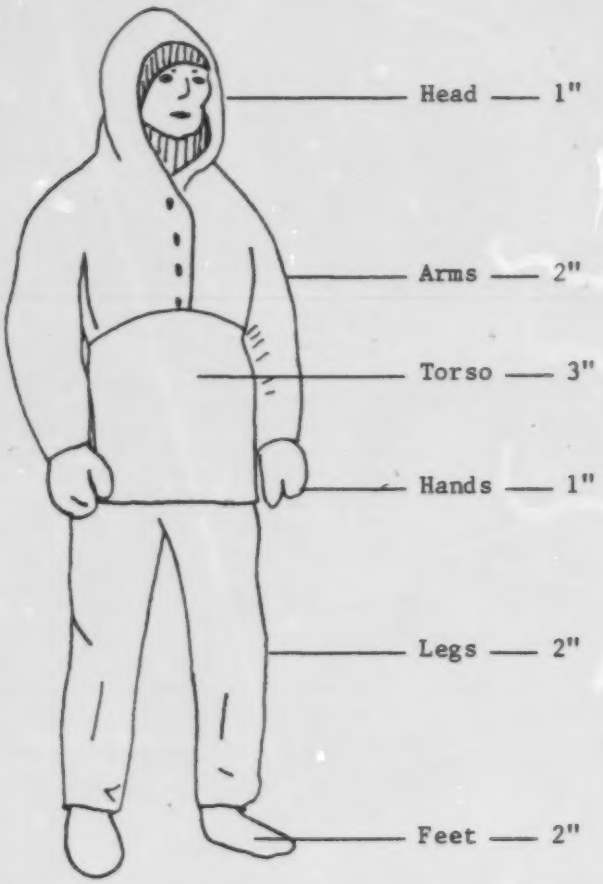
386 "Insulation - The Thick and Thin of It," Backpackers, January, 1980, p. 68.

h Footnote: "Dead air" is any enclosed unit of air so small that natural convection currents do not arise in it.

387 Ibid., pp. 68-69.

> *proportional to the diameter of the body part it covers.* A given thickness of insulation added to your trunk will be more thermally efficient than the same thickness added to your finger, arm, or leg. It will also help raise your body core[i] temperature, with resulting 'spinoff' to the extremities."[388]

For each part of the body, there is an optimum thickness of insulation. Beyond this, added bulk is a hindrance to movement and more trouble than the increased warmth is worth.[389] The following diagram shows optimum insulation thickness for outdoor clothing.



OPTIMUM INSULATION THICKNESS[390]

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[i] Footnote: Body care - the vital organs of the trunk and head. These organs can tolerate only very little temperature fluctuation.

[388] Ibid., p. 69.

[389] Ibid., p. 69.

[390] Ibid., p. 70.

The authors of the Backpackers article indicate that, whereas many kinds of insulating materials are available, only a few are of interest to winter campers. These include:

> Down - the underplumage of ducks and geese. "Quality down - down that will expand to fill a volume of 500 to 550 cubic inches per ounce in a standardized test - offers the greatest thickness per unit weight of any insulating material. Its compressibility is excellent. . . . But, down plumules readily absorb moisture, and their insulating qualities diminish as they collapse. Thoroughly wet down is useless as insulation and is difficult to dry in the field."[391]
>
> Polyester - Polyester insulation materials, while heavier than good down per unit thickness and less compressible, are virtually non-absorbent. They retain their thickness when wet and dry easily in the field.[392]
>
> Thinsulate - This is a brand name for an insulating material which is a blend of polyester and polyolefin fibers. "What separates Thinsulate from all other insulations is the fineness of the individual filaments, and the resulting entrapment of a 'boundary layer' of still air along each fiber."[393] Thinsulate does not absorb water and can be dried readily in the field. However, it is not as compressible as conventional polyesters and conforms to the body less well.[394]
>
> Pile - Pile, or fiberpile, is a relative newcomer to the American market. It has been used in Scandinavian countries for years. "Pile is essentially a rug made of a single synthetic fiber or a blend of synthetics. Pile garments offer reasonable thickness per unit weight and the non-absorptive qualities you'd expect from a synthetic fiber. . . .a pile garment conforms nicely to the wearer's body. Its compressibility is poor and its resistance to wind penetration is virtually nonexistent due to the loose scrim backing on which it is woven."[395]
>
> Wool - Its "virtues" include maintenance of air spaces around the filaments of the fiber when wet. Its "vices" are weight and incompressibility. Wool and wool-synthetic blends have been the traditional materials for cold-weather wear.[396]

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391 Ibid., p. 71.

392 Ibid., p. 71.

393 Ibid., p. 71.

394 Ibid., p. 71.

395 Ibid., p. 71.

396 Ibid., p. 71.

Regulatory Developments

A U.S. Department of Agriculture Family Economics Review, Spring, 1980, reported that:

> "The Federal Trade Commission has been conducting wide-ranging investigations of price-fixing in the men's and women's apparel industries. When violations of the law are exposed, consent order settlements with the manufacturers prohibit them from fixing the retail price at which their product can be sold or advertised."[397]

Also reported was a new type of label "telling consumers more specifically how to care for textile garments and piece goods and how to avoid damaging them."[398] This label is required under a recent Federal Trade Commission ruling. It amends the 1972 requirement for permanent care labeling of textile wearing apparel and adds draperies and curtains, upholstered furniture and slipcovers, carpets and rugs, household linens, and suede and leather garments. New provisions[399] include the following:

- Manufacturers recommending washing on a care label must also recommend the method (hand or machine) and the water temperature (unless all temperatures can safely be used).
- Method of drying and, where necessary, the temperature must be given.
- Items that need ironing and cannot be ironed with a hot iron must have care labels stating the recommended temperature.
- Appropriate warnings, such as "no bleach," must be included.
- Manufacturers recommending dry cleaning must also recommend the type of solvent (unless all solvents can safely be used).
- If an item can be cleaned by more than one method, the manufacturer need give instructions for only one.
- Manufacturers should have a "reasonable basis" for the recommendations on the care label.
- Care labels for piece goods must be given upon request by the consumer.

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[397] Courtless, Joan C., "Clothing and Textiles: Supplies, Prices, and Outlook for 1980," Family Economics Review, U.S. Department of Agriculture, Science and Education Administration, Beltville, Maryland, Spring, 1980, p. 28.

[398] Ibid., p. 28.

[399] Ibid., pp. 28-29.

According to the U.S. Consumer Product Safety Commission, there are thousands of deaths and injuries each year from burns associated with flammable fabrics. Accident patterns associated with flammable fabrics[400] include:

- playing with, or using, matches and lighters,
- using flammable liquids while smoking or near another ignition source,
- using kitchen ranges while wearing garments that can ignite, for example, those with loose, floppy sleeves, and
- smoking in bed.

Other frequent ignition sources include space heaters, bonfires, fireplaces, and coal and wood burning stoves. "The involvement of clothing usually increases the severity of body burn."[401]

In order to make fabrics less flammable, several steps have been taken by the Federal Government. "Standards have been set for the flammability of carpets and rugs, mattresses, and children's sleepwear in sizes 0 to 6X, and 7 to 14."[402]

Consumer Responsibilities With Respect to Care Labeling and Fabric Flammability

In relation to care lebeling of garments,[403] consumers should:

- look for a permanent care label on garments. This label must tell whether and how to launder or dryclean it.
- ask fabric salesperson for care label if it is not provided.
- use care labels for comparisons in the cost of upkeep.
- sew care labels in garments made at home.

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400 "Flammable Fabrics," Product Safety Fact Sheet, U.S. Consumer Product Safety Commission, Washington, D.C., January, 1979, p. 1.

401 Ibid., p. 1.

402 Ibid., p. 2.

403 "Care Labeling and You," fact sheet prepared by Ruth Diez, University of Wisconsin-Extension, Madison, 1975, p. 1.

- use care labels as a guide to selecting component parts of garment when making garments
- follow care label instructions when washing or drycleaning clothes
- expect any garment to be drycleanable unless label warns it is not
- speak out if the care label is missing or inaccurate. Ask the retailer about it or question the manufacturer.

The U.S. Consumer Product Safety Commission has the following suggestions[404] for the purchase, use, and proper laundering of flame resistant fabrics and some first aid tips if one does get burned.

In Purchasing

- Buy flame resistant clothing for children.
- Buy flame resistant fabrics to use in the garments made at home.
- Consider the following factors in purchasing all garments
  - Tightly woven, heavy fabrics (such as denim used in jeans) will ignite and burn more slowly than sheer, lightweight and loosely woven fabrics (such as cotton broadcloth used in shirts).
  - Napped fabric (such as cotton flannel) with air spaces between the loose fibers will ignit faster than a smooth surfaced material (such as denim).
  - A fluffy high pile fabric (such as that used in some sweaters) will ignite and burn faster than a close knit, low pile fabric (such as that used in most pants).
  - Close-fitting garments are less likely to ignite than loose-fitting garments.

In Using

- Be aware of the hazards of ignition sources and of flammable liquids
- Kitchen ranges
  - Keep young children from climbing on top of stoves and igniting their clothing from a lit burner.
  - Don't try to keep warm by leaning against a stove because clothing may ignite.
  - Don't wear loose-fitting sleeves when you reach across lit burners.

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[404] "Flammable Fabrics," op. cit., pp. 2-3.

- Use a potholder instead of a towel to remove a pan from a lit burner.

· Cigarettes

- Don't smoke in bed.

- Be aware that elderly and handicapped people are likely to drop lit cigarettes or ashes on their clothing.

· Matches and Lighters

- Be aware that elderly and handicapped people often drop matches or spill lighter fluid on themselves when lighting cigarettes, cigars, or pipes, resulting in ignition of their clothing. Elderly and handicapped people should not use matches and lighters when they are alone.

- Keep matches and lighters locked up away from children because children often ignite their clothing while playing with matches and lighters.

· Flammable Liquids

- Remember that the heavier-than-air vapors from flammable liquids can travel invisibly across a room and be ignited by a distant flame or heat source, such as matches, lighters, cigarettes, or pilot lights of water heaters and stoves.

- Store flammable liquids in tightly-capped safety containers and keep them away from living quarters - in an outdoor shed and out of children's reach.

With Respect to Laundering Procedures for Flame Resistant Fabrics

Flame resistant fabrics should have permanent care labels. In order to maintain these flame resistant qualities, always follow the care instructions. Most recommend:

- the use of phosphate-based detergents, not soaps or non-phosphate detergents. (If you live in an area where phosphates are banned, use a heavy-duty liquid laundry detergent.)

- the use of warm, not hot water.

- that no chlorine bleach be used.

First Aid for a Burn

- Cool the burn with cool water to reduce pain and stop further damage to the skin.

- Cover a large burn with a clean, dry sheet.

- Do not try to clean the burn.

- Do not put grease, butter, or ointments on a burn. Grease or butter can make a bad burn worse.

- Do not pull clothing over the burn.

- Do not try to remove pieces of cloth that stick to the burned area.

- Do not break blisters

- Call a doctor immediately. Even small burns can become serious if they are not properly treated.

Talk to children about the dangers of fire and tell them what to do if their clothing does catch fire.

- Never run! Do not remain standing.

- Drop to the floor immediately and roll to smother flames.

- Be sure there are two ways out of every room, especially every bedroom. (This may require the purchase of an escape ladder so that you can use an upstairs window as an exit.)

Plan emergency escape procedures in case a fire starts in the home.

- Close bedroom doors at night to hold back smoke in case a fire starts while you are asleep. If a fire does start, don't open the bedroom door unless you are sure the hallway is not filled with smoke.

- Have the family meet at a pre-arranged assembly point outside the home to be sure everyone is out.

- Know how to call the fire department.

- In general, concentrate on saving people, not possessions.

Textiles and Clothing and Energy Conservation

The textiles industry ranks tenth among the top ten energy consuming industries in the United States. It uses approximately 2.4 percent of the total energy consumed by all manufacturing industries in the United States.[405]

The Textile Manufacturers Institute initiated a voluntary energy reporting program in 1973. Sidney Cooper, reporting on the program, stated that, on the basis of energy consumed per unit of production, the entire industry reduced

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[405] Cooper, Sidney, G., The Textile Industry: Environmental Control and Energy Conservation, Noyes Data Corp., Park Ridge, New Jersey, 1978, pp. 70-179.

energy consumption by nearly 13 percent when comparing November, 1972 - March, 1973 with the same month in 1975 - 1976.[406] And, of course, energy conservation continues to be a major concern of the textile industry—along with maintaining quality of goods produced.

In an article in Textile Chemist and Colorist, Wallenberger, Slack, and Wentz report on a study of the effect of fabric composition on energy demand in home laundering. They conclude that:

> "Fiber dependent energy savings in home laundering and drying of a garment are more important than those that can be realized in dyeing and finishing of the fabric from which the garment was made, as home laundering and drying is a process step which is repeated 20 to 50 times during the lifetime of the fabric.
>
> ". . . .in home laundering and drying, the combined energy demand for 100% cotton fabrics is several fold higher than for 100% polyester or blends having a high polyester content.
>
> "Extrapolation of the difference in energy demand in washing and drying of 100% polyester loads from 100% cotton loads to 50 million households leads to a figure of a savings in energy demand of 330 trillion BTU annually."[407]

Speaking at the 1979 Food and Agricultural Outlook Conference, Home Economist Annette Polyzon stated that:

> "Consumers may conserve energy by altering their maintenance practices, by extending the wear-life of garments where possible, and selecting garments that require less energy for maintenance. . . . .means of conserving energy used in maintenance include using laundry equipment with energy conserving features, using cold water for wash and rinse cycles, hanging garments to dry, and reducing the need for frequent laundering by means of spot cleaning and wearing protective covering such as aprons and underarm shields. The wear-life of garments may be extended by less frequent laundering of garments, by greater care in wearing and storing garments, and by selecting styles and fabrics that will be acceptable for longer periods of time. Sanitation as well as the general appearance of garments should be considered in deciding on specific means of conserving energy."[408]

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[406] Ibid., p. 74.

[407] Wallenberger, F.T.; A. Slack; and M. Wentz, "The Effect of Fabric Composition on Energy Demand in Home Laundering," Textile Chemist and Colorist, Volume 12, No. 7. 1980, pp. 20-23.

[408] Polyzon, Annette, Energy Consumption in Textiles and Apparel, Talk presented at the Food and Agricultural Outlook '79 Conference, Washington, D.C., November 16, 1978, p. 6.

Fiber and Textile Arts

There has been a resurgence of interest in the arts of hand weaving, textile printing, and other surface design techniques.

It is important to remember that in less industrialized countries much textiles production takes place in homes. The articles produced frequently have symbolic value in both social and religious areas.

IMPLICATIONS FOR CONSUMER AND HOMEMAKING EDUCATION

In modern Consumer and Homemaking Education focused on family needs, textiles and clothing has a place, but it is not a major area of study, particularly as regards the skills of sewing and garment construction. These skills are properly included in wage-earning programs in the clothing and textiles area. In schools where it is possible to provide a variety of home economics electives, clothing construction may be included as one of the electives. Inflated prices of clothing may make clothing construction skills helpful means of coping. However, it should be recognized that there are many opportunities for individuals to learn sewing skills through various educational programs and, if one does not learn in high school, one can learn in adult classes when interest and need may be greater.

Also, it is important to recognize that the skills of sewing are less important to the quality of family life that the critical skills and understandings of human relations, parenting, consumer choice, management of resources, and even those related to the home environment.

Attention in Consumer and Homemaking Education should be given the problems of clothing and textiles selection for individuals and families. Much of this content is subsumed under the heading of consumer education. Attention should be given not only economic factors related to clothing but also psychological factors. Awareness of the communicative value of dress should be developed.

In teaching for selection, comfort properties of textiles and clothing, fabric

flammability, and properties of various fibers are appropriate areas of content. The social and psychological aspects of dress should also be considered; information on this subject is given in most general and clothing textbooks used in Consumer and Homemaking Education classes.

Students should be made aware of energy considerations related to clothing, particularly those involving home care of clothing. Means of conserving energy in clothing maintenance may be taught without a great expenditure of class time.

Safety factors involved in clothing selection and care should be a minor, but significant, part of the curriculum. Part of this may be taught in relation to child care.

Awareness of fiber and textile arts should be developed, but this writer does not recommend their inclusion beyond this level in the Consumer and Homemaking Education program at the secondary level. At post-secondary and adult levels they may have a somewhat more significant role.

HOUSINC AND HOME FURNISHINGS

The Housing and Home Furnishings aspect of Consumer and Homemaking Education might better be titled Environment for Family Living which would place the emphasis where it belongs: on the home as a setting for family interaction and the development of its members. In practice, this component of the Consumer and Home making Program has been given less attention than it deserves. Montgomery underlined the importance of the physical setting of the family when he identified the following human needs[409] which have relevance for conceiving, designing, and building homes:

- protection from man and nature
- need for a sense of place or rootedness
- need for a wholesome self concept
- need to relate to others
- need for social and psychological stimulation
- creative or transcendental needs
- need to fulfill values

Graff, in the Journal of Home Economics, has stated that:

> "The term 'house' refers only to a physical structure, but 'home' refers to a place that provides for the growth and maintenance of a social structure — the family.
>
> "Family members take possession of a house's interior spaces, reserving some rooms for common use and designating other areas as individual territories. This process of making a place one's own through organizing and arranging space to accommodate different activities and different roles and behaviors of family members is called appropriation.
>
> "Appropriation begins with perceptions of images illustrating what a home should be, followed by actions that involve modifications of self, family, and house and that result in acceptance and identification with the home."[410]

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[409] Montgomery, James E., Human Needs in Housing, chapter in Human Needs in Housing, An Ecological Approach, Karen Nattrass and Bonnie Maas Morrison, ed., R.F. Publishing, Washington, D.C., Melburn, N.J., 1976, pp. 49-53.

[410] Graff, Charlan, "Making a House a Home," Journal of Home Economics, Volume 69, No. 3, May, 1977. p. 11.

Housing has physical, economic, social, and aesthetic aspects — all of which should be of concern to those interested in the well-being of the family and its members.

Housing Projections

In May, 1980, the editors of Changing Times reported that "Government and private sources commonly project that 1,500,000 to 1,600,000 new households will be formed annually during the decade, compared with a year average of about 1,400,000 in the 1970's."[411] They further reported that (1) home buying by singles will probably increase, (2) more older people are expected to continue living in their homes after their children leave the home, a trend that will result in fewer resales, and (3) the number of dwelling units that will need to be replaced because of demolition, condemnation or conversion to new-residential uses is expected to increase.[412]

According to Changing Times, the National Association of Realtors predicts that the median price of a home will go up about 65 percent from 1980 to 1985 and reach $102,000. After 1985, the rate of increase is expected to decline. However, the rate of increase could be pushed up by any number of developments, such as higher-than expected boosts in prices of foreign oil. Some researchers predict that by 1985, first year expenses for a new home could use up 45 percent of the median family income.[413]

Housing and Family Health

In an article on Housing and Health, Lemkau stated that, "There is no simple relationship between health, including mental health, and the kind and quality

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[411] "The Coming Boom in Housing," Changing Times, Volume 34, No. 5, May, 1980, p. 21.

[412] Ibid., p. 21.

[413] Ibid., pp. 21-22.

of housing people live in."[414] According to Lemkau, one area in which health and quality of housing are unequivocally related in that of infectious disease. The transmission mechanisms involve direct contact or short distance transmission by an identifiable agent.[415] Evidence has also accumulated that more chronic types of illness such as hypertension, may be induced by environmental factors.[416]

Lemkau has pointed out that:

> "It is well recognized that the environment does not influence all people equally and that attitudes and abilities, inherent or environmentally determined, make a difference. . . Some families maintain unity, morale, and spirit for long periods of time under what seem to be grindingly severe deprivations, while others lose morale easily and never seem to regain it; some appear never to have had it to lose.[417]

Many factors are, or have been assumed to be, related to the mental healthfulness of housing. Lemkau examined the literature related to these and found the following.

- Structural factors

> "There appears to be general agreement that exposure to properly proportioned buildings, tastefully decorated by works of art, is a good thing for a person's peace of mind and satisfaction with life and, by inference, for his or her mental health,"[418] but, "Some authorities are rather suspicious of an ideal architecture that might prove too satisfying and lead to an undisturbed homeostatic state that would discourage change, adventure and creativity."[419]

> Interior space and its arrangement relates to the utility of a building and to satisfaction in its use. Space allowance and the amount of personal space desired by each person varies in different

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[414] Lemkau, Paul V., "Housing and Health," from Housing Perspectives: Individuals and Families, Second Edition, edited by Carol S. Wedin and L. Gertrude Nygren, Burgress Publishing Co., Minneapolis, 1979, p. 145.

[415] Ibid., p. 145.

[416] Ibid., p. 146.

[417] Ibid., p. 148.

[418] Ibid., p. 149.

[419] Ibid., p. 149.

cultures. "Violation of private space is shown by restlessness and other evidences of ill-ease in people, reactions obviously having relationships to mental well-being."[420]

External factors

- The setting of the building.

> ". . .the still accepted ideal appears to be that people should live close to nature. ....The desire to have a plot of ground around one's home appears all but universal for families of child-bearing age."[421]

Interest in living close to nature and having safer places for children to play out-of-doors were factors that led to a rush to the suburbs. Planned communities in the suburbs followed this movement. However, the energy crunch may send some back to the cities. In particular, a return to the central city may be expected on the part of the elderly due to transportation difficulties.[422]

- High-rise versus low-rise.

People who live in high-rise apartments tend to have less social interaction with their neighbors than do those living in low-rise dwellings. Recurrent sources of difficulty in high-rise living may include "noise, waste disposal, laundry, stairways and their cleanliness, and elevators and auto parking."[423] Other problems are related to the provision of play space for children and toilets for their use at ground level.

The most frequent suggestions for alleviation of the foregoing problems involve organizing tenants to fill their own needs and police

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[420] Ibid., p. 150.

[421] Ibid., p. 150

[422] Ibid., pp. 150-153.

[423] Downing, G.L., "Living in High Flats - Problems of Tenants and Management," American Sociological Health Journal, 83, 1963, pp. 237-243, as reported in Lemkau, op. cit., p. 154.

themselves collectively and space for communal or cooperative activities such as auditoriums, swimming pools, gymnasiums, and hobby areas. For the elderly, telephone communication and buddy systems for checking on one another are helpful.[424]

A study of families of members of the armed forces living in Germany showed higher rates of respiratory infection for those who lived in flats. Psycho-neuroses in women were also higher in this group; however, the author admitted to deficiencies in the data collection system.[425]

Low-rise housing, including single family dwellings, may have the problem of higher transportation costs involved in getting to and from home and service needs that may be difficult to meet if all members of the family are away from home during the day.

Lemkau has stated that:

"Housing faces a dilemma: high-rise with fewer transport and square footage issues but with social isolation only to be offset by more expenditures for tenant services, or low-rise with greater transport problems and, probably, an increasing need for tenant services as time goes on. Perhaps the most important issue is that modern congregate living probably requires as great attention to finding satisfying ways to live as in finding satisfactory dwellings in which to live."[426]

- Arrangement and location.

Metropolitan areas have grown by engulfing communities on their periphery. In the process, these communities have tended to lose some of their distinctive characteristics and the metropolitan area has become too large for anyone to experience a feeling of community membership and loyalty. Hence, "attempts are being made to revivify the town consciousness of sections of cities."[427] In the process, the

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[424] Lemkau, op. cit., p. 154.

[425] Ibid., p. 154.

[426] Ibid., p. 155.

[427] Ibid., p. 155.

cultural diversity of the city is being recognized and valued.

Lemkau has indicated that:

"reemphasis on local government and on local, metropolitan, state, and national loyalties is seen as a necessary but, for a period, neglected part of a satisfying existence."[428]

- Art and its uses.

Art is a necessary ingredient to people's contentment and increasing attention is being paid the artistic quality of housing.[429]

Internal Features of the Dwelling

- Size

Standards with respect to size cannot be applied equally for all populations since they depend upon tradition, building materials, and cultural patterns.[430] The frustrations and problems of crowding and inadequate housing are associated with increased infectious disease and there is some indirect evidence that they may result in increased mental illness.[431]

Rogler and Hollingshead stated that:

"The crowded household clearly interferes with the life of the individuals included in it. The child in school has no place to study uninterruptedly so that it is very easy for him or her to give up the effort which is not highly valued by people in his or her environment in any case. The mother has no surcease from her children who are frequently more than she can bear and, probably, more than she should have borne. Sharing in making family decisions is next to impossible where there is not enough space for family consideration. Vacillating autocracy is likely to result, with consequent confusion in the children about desired standards of behavior. Exhaustion from continuing failure to be able to control too many people in too small a space may result in giving up the effort.[432]

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[428] Ibid., p. 155.

[429] Ibid., pp. 155-156.

[430] Ibid., p. 156.

[431] Ibid., pp. 157-158.

[432] Rogler, Lloyd H. and August Hollingshead, "Trapped: Families and Schizophrenia," John Wiley and Sons, Inc., New York, New York, 1965, as reported in Lemkau, op. cit., p. 157-158.

- Room arrangement

The convenience of room arrangement has not yet yielded to analysis as a factor determining mental health or disorder. However, the violation of privacy that occurs when family members must go through the kitchen or the bedrooms of others to reach the bathroom or when the bathroom is shared by multiple families is clear. Neglect of toilets, halls, and stairways when they are commonly shared is notorious.

Anecdotal material has been presented to indicate that sleeping arrangements affect the psychosexual development of children. However, there is no statistical proof clearly showing a relationship between sleeping arrangements and mental ill health.

That relief of crowding and increased convenience in room arrangement are appreciated by tenants is evidenced by statements of those who have moved from inconvenient to more convenient quarters.[433]

- The kitchen

In many houses, the kitchen is the living room in a literal sense. It may be the place where food is prepared and eaten, where study is done at the kitchen table, and where the family collects for conversation and recreation; in some crowded homes, it may provide sleeping quarters. Laundry and ironing may be done in the kitchen and it may serve as a child's chief play area. "It is an all-purpose room with many opportunities for interfering, competitive activities."[434]

If kitchen equipment and appliances impose inefficient use of the human body, pain, fatigue, and irritation may result. Lack of proper storage space in the kitchen results in wasted time, annoyance, and, perhaps, even danger to children and others. Tracking of outside soil

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[433] Lemkau, op. cit., p. 159.

[434] Ibid., pp. 158-159.

into the kitchen may produce formidable cleaning tasks. The kitchen is loaded with things and activities which make the user's productivity difficult and threaten her or his disposition. And, it is usually the female (the wife and mother) whose disposition and productivity are most affected.[435]

- Closet space

> "Inadequate storage facilities make for difficulty in cleaning, require fatiguing bending and stooping, make for clutter compounded by adventurous and curious toddlers, and, in all, contribute to the lowering of the morale and likelihood of intemperate and inconsistent sorts of disciplinary actions on the part of the mother."[436]

- Quiet areas

People have needs both to be sociable and to withdraw from groups from time to time. The latter may be made impossible by crowded, inadequately heated living spaces.

A Baltimore study showed a trend toward husbands spending more time at home after resettlement in improved housing which might be interpreted as less need to find anonymity in a crowd — a separateness not possible in the house that was left behind. The study also showed that a larger proportion of the resettled families owned record players and television sets; this chould be interpreted as indicating a greater possibility of enjoying a kind of solitude without interruption at home.[437]

- Multiple use of space

It is a large task to keep all of the functions orderly when housing space has multiple uses. Accidents may be more frequent in such situations and there may be more litter and cleaning problems. Mental, emotional and physical problems may relate to the use

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[435] Ibid., p. 159.

[436] Ibid., p. 159.

[437] Ibid., pp. 159-160.

of a given living space for multiple purposes.[438]

- Bathrooms

Multiple responsibility for toilets and bath areas appears to lessen individual responsibility and to lead to defacement, soiling, and neglect. Lemkau has stated that, "Although there is no evidence at hand to support the surmise, it is possible that the toilet is more important than other items listed previously in its effects on morale."[439]

- Built-in and other furniture

Although built-in furniture offers some solutions to multiple use of space, it limits arrangement and thwarts the homemaker's creativity. Built-ins, such as folding beds, may make space more flexible but prove disruptive if several persons are involved in use of the space.[440]

- Heating

The American ideal is central heating, whereas in England an open fire is considered highly desirable. This latter is related to "traditions that have acquired a sentimental character."[441]

The kind of fuel and heating system used for warmth and for food preparation relates to the health and safety of the occupants of the home.[442]

- Refrigeration

Refrigeration is important to the health of the family. It also allows purchasing food in quantity and thus effecting some saving of money.[443]

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438 Ibid., p. 160.

439 Ibid., p. 160.

440 Ibid., pp. 160-161.

441 Ibid., p. 161.

442 Ibid., p. 161.

443 Ibid., p. 161.

- Appliances

Appliances affect housing quality and satisfaction. For example, the use of an air conditioner may relate to general comfort and emotional well-being. Questions regarding the effects of air-conditioning call for research.

The garbage disposal unit aids in reducing fly and rat populations and noxious odors — all of which are harmful to physical and emotional well-being.[444]

- Color

Lemkau has indicated that "There is little or no scientific information on the varying effects of color in the home. It is believed that variety of color is better than monochromatic treatment and that lighter shades are preferable to dark shades because they conserve light and, probably, lighten the mood."[445]

-Noise

The degree of annoyance caused by noise in the environment is related to the following factors:

1. "the level of sound and its quality, including rise and fall characteristics;
2. "the meaning of the sound; and
3. "the individual variation of sensitivity of hearers."[446]

It is generally agreed that excessive noise causes nervous strain and interferes with rest and privacy. On the other hand, absolute silence is psychologically upsetting; "the human nervous system appears to be adjusted to a wealth of random-type noise in the environment and

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[444] Ibid., pp. 161-162.

[445] Ibid., pp. 162-163.

[446] Ibid., p. 163.

is not disturbed by it, provided the level is not too high and that it has a fixed, unchanging meaning."[447]

Moving and Mental Health

Moving from one house to another may precipitate psychiatric disorders, particularly among those who have suffered early personality disorders.[448]

In summary, Lemkau has concluded that:

> "The quality of housing is clearly related to the mental health of its inhabitants in that it controls to a considerable extent the intimate environment in which individuals live, particularly during their formative, early years. It exerts its influence in a large number of ways, some of which are subject to relatively exact measurement and some of which remain, to too large an extent, more or less obvious but not measurable."[449]

Barkley, a Management Systems Auditor, Housing Authority of the City of Pittsburgh, has written on room space and its relationship to mental health, an article based on his observations as a relocations officer for the Authority. He concluded that:

> "For a house to provide a healthy environment to become a home, it should be designed to allow both contact and separation. People do not learn self-respect if they are never able to be alone in the early years of life.",[450] and "Every aspect of a person's life affects his ability to respond to events with confidence or dependence, competence or insecurity. A home that includes the possibilities for varying textures, for privacy and concourse with family members, secures the family's identity while easing the transition to public relationships and responsibility."[451]

Michael Lee, writing in the October, 1980 Florida Designers Quarterly, pointed

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[447] Ibid., pp. 164-

[448] Ibid., p. 165.

[449] Ibid., p. 165.

[450] Barkley, J. David, "Room Space and Its Relationship to Mental Health: Some Observations of a Relocation Officer," Journal of Housing, Volume 3, March, 1973, pp. 132-133.

[451] Ibid.

out the impact of the interior environment on families. He called for "the productive utilization of interior design to help provide a positive environment for the nurturing of the American family."[452]

Housing and Relationships

Montgomery, in an article in The Family Coordinator, developed the thesis that marriage and family life specialists have a responsibility to include housing, an important aspect of the nonhuman environment, in their work with individuals under stress. He suggested "that family specialists reckon with the significance of housing as well as with the significance of others."[453]

Montgomery identified seven concepts which appear relevant to the ways in which housing patterns affect husband-wife relationships. "These are: privacy, self-concept, replenishment, psychological stimulation, sense of place, relatedness, and creativity."[454]

Privacy for husband and wife to disengage from the rest of the world is essential for communication and for building an emotional life together.[455] Montgomery has pointed out that the degree to which privacy is satisfied in American homes is positively correlated with income.[456]

Back, in commenting on the findings of a housing study of Puerto Ricans stated that, "people frequently see the house as an outer shell of the self. Where a person lives and how he lives determine the view which he has of his place in

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[452] Lee, Michael, "Interior Environment - The Impact on Families," Florida Designers Quarterly, Volume 3, No. 6, October, 1980, p. 82.

[453] Montgomery, James E., "Impact of Housing Patterns on Marital Interaction," The Family Coordinator, July, 1970, pp. 82-89.

[454] Ibid., p. 83.

[455] Ibid., pp. 83-84.

[456] Ibid., p. 84.

the community, his role, his status, and his style of life."[457] Montgomery stated that, "...one is led to speculate on what may be happening to the *self-concept* of the masses of people who live their lives in environments that surely send out the message in a thousand ways, 'You are not very important, not very effective, and not very worthy, or you would not live here.'"[458]

How an individual is housed may diminish or exaggerate the daily frustrations he or she experiences on the job or in homemaking. "Size of apartment or house, arrangement, storage facilities, equipment, temperature, lighting, etc., all serve to form the atmosphere which either allows couples to replenish their physical and emotional store or further deplete it."[459] The *replenishment* of the couple's personal resources contributes to the well-being that serves to enhance relationships.

It is held that "a monotonous environment is a very real and serious form of sensory deprivation."[460] *Psychological stimulation* through an attractive environment which provides interest and variety is important for personal development and social interaction. Montgomery has added that:

> "A search of the literature failed to disclose any definitive research that states in bold letters when an environment, when an apartment or a house is sensorily depriving, and when it is stimulating. Until the facts are in, one can hypothesize that a gray, dull physical environment is one reason why husbands and wives become bored with one another and with life. Bad jokes are frequently heard about the frequency with which women make changes in the dwellings — new draperies, new paint for the walls, new furniture, and the rearrangement of old pieces. There is more than an outside chance that this is being done to ward off psychological ennui."[461]

Montgomery contends that, "The person who is free to communicate and interact

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[457] Back, Kurt W., Slums, Projects, and People, Duke University Press, Durkham, North Carolina, 1962, quoted in Montgomery, op. cit., p. 85.

[458] Montgomery, op. cit., p. 85.

[459] Ibid., p. 85.

[460] Ibid., p. 86.

[461] Ibid., p. 86.

with his spouse is likely to be an individual who feels at home with and a part of his dwelling, his neighborhood, and his community."[462] This person has a *sense of place.*

A house not only affects the ways in which family members relate to each other, but it also serves as the main bridge between the family and the outside world. Thus, *relatedness* is a concept relevant to the ways in which housing patterns affect husband-wife and other family relationships.

Creativity with respect to one's environment is needed for the emotional well-being which enhances the quality of family relationships. Dumont put it this way:

> "The need to feel some control over the environment, to leave a fleeting imprint of one's foot or hand or soul on the matrix of the world is a basic psychological need and the frustration of that need can wreak havoc."[463]

Montgomery concludes that:

> "It has been suggested that family life educators and other family specialists add housing patterns to their field of vision. Not only will the inclusion of the housing dimension lend strength to their efforts, but they will have an opportunity to influence the decisions of architects, builders, and planners who, for the most part, are ill prepared to create structures that are fitting environments for the subleties of marital interaction. In a society characterized by striving for things material, persons judge themselves and are judged by others in terms of nonhuman objects. Primitive man was part of the natural environment in which he lived, but modern man is a part of the manufactured environment — dwellings, appliances, furnishings, automobiles. Thus, housing patterns are sufficiently relevant to marital interaction to merit increasing concern by professional persons interested in the family. In their work they need to reckon with the significance of housing as well as with the significance of others."[464]

In discussing the relationship between architecture and human behavior, Laug stated that:

> "the build environment, by itself, has little effect on major patterns of social behavior,...there is overwhelming evidence that the

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[462] Ibid., p. 87.

[463] Dumont, Matthew, The Absurd Healer, Science House Press, New York, N.Y., 1968, quoted in Montgomery, op. cit., p. 89.

[464] Montgomery, op. cit., p. 89.

> layout and symbolic content of the manmade environment can encourage or inhibit certain social activities. The reason is simply that structuring the environment in turn structures the communication processes that form the basis of social interaction..."[465]

Rapopart, in an article on the personal element in housing concluded that, "As other areas of life and work become increasingly more remote from the personal control of the individual and more de-personalized, this need (for self-expression) becomes greater in the house."[466] He indicated that, although user surveys may be used to determine needs of residents, they have not been fully successful. "Information obtained is limited by the knowledge and experience of the consumers." He added, "Since choice can only be made on the basis of what is known, education of the public in problems of the environment becomes critical."[467]

In a paper presented at the 1976 annual meeting of the National Council on Family Relations, Melson spoke from the perspective that "the ecology of the household has important social and psychological effects upon family members both because of their symbolic interpretation of spatial arrangements and because such arrangements structure their social encounters."[468] She reported on several studies concerning "the role of household (e.g., private) space in supporting sex-role differentiated behavior among family members and in structuring family interactions, particularly family conflict."[469]

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[465] Lang, Jon, "Architecture for Human Behavior: The Nature of the Problem" in Architecture for Human Behavior, collected papers from a mini-conferance, Philadelphia Chapter, American Institute of Architects, Philadelphia, Pa., 1971, pp. 5-6.

[466] Rapopart, Amos, "The Personal Element in Housing: An Argument for Open-Ended Design," in Human Needs in Housing an Ecological Approach, edited by Karen Nattrass and Bonnie Maas Morrison, Washington, D.C., 1976, pp. 180-187.

[467] Ibid.

[468] Melson, Gail Freedman, The Home as a Sex-Typed Environment: Implications for Marital Conflict, Purdue University, paper presented at 1976 meeting, National Council on Family Relations, p. 1.

[469] Ibid., p. 1.

One study dealt with sex typing in the affective interpretation of interpersonal space. Two hundred female undergraduates participated in the study. Each subject completed a questionnaire on "home and college housing" embedded in which were items designed to measure sex differentiation of familial space. The latter was conceptualized as having two dimensions: (1) identification with an area (e.g., mother and kitchen) and (2) privileged access (e.g., ability to exclude others). Of six questions, three referred to identification and three to privileged access.[470]

> "In addition, each subject completed a projective measure designed to elicit affective interpretation of interpersonal space. Nine silhouette pair drawings using all combinations of three distances X three sets of dyad combinations were presented in random order. In response to each presentation, subjects were instructed to write a story answering the following questions: Who are these people? What are they doing? What are they thinking?"[471]

Findings of the study were that

- "decreasing interpersonal distance signalled an intimate relationship involving increasingly personal activities."[472]
- "close male pairs....were perceived as affectively negative (55%) rather than positive (19%). (Percentages do not sum to 100 due to elimination of low frequency categories.)"[473]
- "close female pairs were perceived as generally positive (49%) rather than negative (7%)."[474]
- "hetereosexual pairs received approximately equal positive and negative affect statements."[475]
- "spaces were differentially associated with parents, but not with children."[476]

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[470] Ibid., pp. 5-6.

[471] Ibid., p. 6.

[472] Ibid., p. 7.

[473] Ibid., p. 7.

[474] Ibid., p. 7.

[475] Ibid., p. 7.

[476] Ibid., p. 8.

- "'kitchen' was named by 80% of those respondents identifying any maternal territory, while no single paternal territory was named with higher frequency than 30% (garage).[477]

- sex-type perceived territoriality declined with increasing socio-economic status and with maternal income (but not employment per se).[478]

A second study examined correlates of environmental stress in intact families. Twenty-six married student families, each with one or two children under 12 living in identical floor plan units of married student housing, participated in the study. Each family completed two questionnaires, the Family Space Inventory, which measures evironmental stress and adjustment, and the Family Environment Scale, which measures perception of family environment along ten dimensions such as cohesiveness, conflict, intellectual orientation, organization, and control. The spatial movements of each family were observed in two home visits during the 4-6 p.m. period, which previous research identified as peak use hours. Finally, a projective measure was designed for the study. Using a scale model of a similar apartment and manipulable figures and furniture, each adult and child over three years of age was individually given four situations to complete.[479] Some of the findings of this study follow.

- "Territoriality in terms of privileged access was virtually nonexistent in the sample studied, but territoriality as defined by identification with and use of space was more common."[480]

- "In answer to the question, 'Where do you go when you want to be by yourself?' husbands responded: bedroom, 12%; kitchen, 8%; living room, 62%; nowhere in particular, 19%. Wives responded to the same question: bedroom, 4%; kitchen, 50%; living room, 39%; nowhere in particular, 8%..... Wives were significantly more likely to choose some area and more likely to choose specifically kitchen than were husbands."[481]

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[477] Ibid., p. 8.

[478] Ibid., p. 8.

[479] Ibid., p. 10.

[480] Ibid., p. 11.

[481] Ibid., pp. 11-12.

- "...those who checked 'nowhere in particular' also made fewer adaptive responses.....such as cutting down noise level, getting out more often, setting up a schedule, etc., designed to ameliorate perceived stress and enhance their living conditions."[482]

- "Observed territoriality, defined as the ratio of separate to shared space use, was very high in the whole sample during the observation period."[483]

- "...the use of territoriality for privacy was significantly related to number of withdrawal statements[j] in response to both need conflict and decision making stories."[484]

Melson commented that, "The positive relation between identification with spatial areas within the home and positive adjustments to perceived environmental stressors suggests that Virginia Woolf's 'room of one's own' (or favorite chair) may function to defuse family conflict."[485]

Sex-Stereotyping in Architecture

Dolores Hayden, Assistant Professor of Architecture and History at the Massachusetts Institute of Technology, feels that architecture is impeding women's efforts to escape stereotyped domestic roles.[486] However, she indicates that, in the next twenty years, we will be seeing single family residences reflecting the changing roles of women. Possible design changes which would free women from traditional roles include:

- making the kitchen the heart of the house and getting everyone involved in that space even if it means doing without a living room.

- letting the kitchen almost wither away. This would involve minimum preparation facilities and increased use of prepared food.

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[482] Ibid., p. 12.

[483] Ibid., p. 12

[j] Footnote: Withdrawal statements were statements of movement away from others, for example, "He has to go out, so he just goes; she'll have to understand."

[484] Ibid., p. 12.

[485] Ibid., p. 12.

[486] Dreyfuss, John, "Cook-Housekeepers Role is Promoted in Architecture," Capital Times, Madison, Wisconsin, June 10, 1977.

Hayden says that its not possible for working women to make the most efficient use of the home as it is presently designed. Author of "Seven American Utopias: The Architecture of Communitarian Socialism, 1790-1975" Hayden suggests that parts of some historical design elements and life styles could be adapted for today's residences. Around the turn of the century novelists began writing about a future where women would no longer be involved heavily in domestic duties. Some notions included were kitchenless houses, community kitchens, and elimination of women's work as private and unpaid.

Housing and the Child's Needs

Anita Olds, in discussing "The Child's Need for Motion Outdoors" has stated that:

> "....conditions constraining children's movement are growing worse in our society, greatly aggravated by an economic situation that causes severe housing shortages and by an influx of people to urban areas. More and more children are being brought up in apartments with little interior space in which to move around. That small space is further reduced by the presence of all the appliances, gadgets, furniture, and material possessions we buy. Children compete with the TV set, the vacuum cleaner, and the couch for available space. Adults, who have spent a great deal of money on a particular appliance, further constrain them from moving and touching, so as not to risk damage to prized possessions."[487]

Certainly, for the family with children the developmental needs of the children should be a major factor in selecting a location for a home, the style of home, its interior arrangements, and its furnishings.

A study by Jeffers was concerned with the effects of the home environment on the social behavior of children. An abstract of the study follows.

> "Thirty-two pairs of nursery school children, matched for age, sex, height, and weight were observed playing together in two 20 minute sessions to determine the effects of familiarity of the environment on their social behavior. The first session took place in surroundings unfamiliar to both children (the home of V.W. Jeffers), and the second in the home of one of the children of the pair. Children at

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[487] Olds, Anita, "From Cartwheels to Caterpillars: The Child's Need for Motion Outdoors," Human Ecology Forum, The New York State College of Human Ecology at Cornell University, Volume 10, No. 3, Winter, 1980, p. 25.

> home initiated both more positive and aggressive social interactions and were more effective in attracting the visiting child into play than were children away from home, even when they had been shyer during the first meeting."[488]

Writing on the designing of developmentally optimal classrooms for children with special needs, Olds has made recommendations which are also applicable to the home environment to meet needs of all children. She says that the environment should meet the needs of children: to move, to feel comfortable, and to feel competent.[489]

She states that "Few creatures alive are busier or more energetic than the preschool-age child..."[490] The child needs an environment which allows him or her *to move* about and interact with the various features of his or her environment. Protection of the child must be kept in mind in structuring this environment.

"Physical settings that provide moderate, rather than over - or under - arousing, levels of sensory stimulation are usually perceived as comfortable."[491] Variety and richness in the home setting serve to make the environment warm, welcoming, interesting, and *comfortable*. Pillows, plants, soft furniture and the like give sensory richness to the setting. Small scale furnishings for children add to their comfort as do low shelves and containers for play materials. Interest is aroused through the variety provided by pictures and other art objects, books, music, pets, plants and flowers, and different textures in furnishings.

Every child wants *to feel successful or competent* in what he or she does.

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[488] Jeffers, Victoria W. and Richard K. Lore, "Lets' Play at My House: Effects of the Home Environment on the Social Behavior of Children," Child Development, 50, 1979, p. 837.

[489] Olds, Anita R., "Designing Developmentally Optimal Classrooms for Children with Special Needs," Special Education and Development: Perspectives on Young Children with Special Needs, edited by Samuel J. Meisels, University Park Press, 1979, p. 92.

[490] Ibid., p. 92.

[491] Ibid., p. 94.

The environment should support this need. Olds states that

> "...environmentally induced sources of strain often interrupt children's attempts at mastery. Some primary sources of environmentally induced incompetence are: physical facilities poorly scaled or in poor working order, confusing layouts, disorganized arrangements, inadequate materials, and (lack of) spatial provisions for desired activities."[492]

Although Olds was speaking to classroom problems, her statements also apply to the home environment.

In Consumer and Homemaking Education programs, the environmental needs of the child should be a part of content in both Child Development and Housing and Home Furnishings areas of study.

Housing the Elderly

Interest in and concern for elderly members of the family should be built into the content of the Consumer and Homemaking Education program. Housing needs of elderly family members could be an area of special interest to many students. According to Salmon and Salmon:

> "Housing for the aging is a matter of providing the best possible environment for individuals in their later years. This housing must provide a physical and social environment that extends the time during which the elderly can live independently. The environment must provide safety and convenience without conveying an association with the ill or infirm, and should help to stimulate interest in and zest for life."[493]

Suzanne Scott, University of Wisconsin-Madison interior design instructor, says that "Older adults have increasing difficulty perceiving and decoding environmental cues due to declines in their sensory-motor abilities. Although older adults are more prone to debilitating illness and injuries, most of the physical changes they experience are natural parts of the aging process and don't render an older person disabled."[494]

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[492] Ibid., p. 97.

[493] Salmon, Christine F. and F. Cuthbert Salmon, "Housing the Elderly," Journal of Home Economics, Fall, 1978, p. 23.

[494] "Aging Requires Home Changes," Press Gazette, Green Bay, Wisconsin, June 27, 1980.

Since people obtain nearly 80 percent of their information through sight, it is important to make adjustments for the declining visual ability of older adults. Because yellowing of the eyes' lens results in less contrast between objects and less ability to see colors in the blue-violet range, Scott suggests using soft, deep, warm colors and avoiding lights that produce glare. For stairway safety she recommends that the riser be a different color from the step with a stripe marking the edge of the step.[495]

To help compensate for a decline in muscle strength and agility and to create a safer environment, Scott recommends that objects in the home be arranged for the user's convenience, according to priority and frequency of use and within comfortable reach. She also suggests fixing doors so that they open easily and removing threshold rises or modifying them by building miniature ramps.[496]

For the bathroom, she suggests sturdy, stainless steel bars around fixtures to help guard against falls. Non-skid strips in the tub and a tub transfer bench also serve as safety devices.[497]

Chairs for the elderly should have arms, backs that conform to the backbone curves, and a little higher seat. Chairs should be sturdy yet light enough to be moved for cleaning. Preferably they are covered with fabrics that "breathe" rather than plastic or vinyl. Chairs with wheels or ones that tilt may prove hazardous.[498]

Scott advises that, "In any situation, it's possible to have well designed environments only after considering the unique needs and constraints of the user. In fact, an environment that is well designed for a person over 65 would probably

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[495] Ibid.

[496] Ibid.

[497] Ibid.

[498] Ibid.

also be safe and suitable for a person of any age."[499]

Additional suggestions for the housing of the elderly, provided by Salmon and Salmon,[500] follow.

- Provide virtually double the normal amount of light.
- Provide louder alarms and signals.
- Provide good insulation to prevent the transmission of sound.

  "However, adequate insulation should not be interpreted to mean freedom from noise. Distant and impersonal sounds can be reassuring for the elderly. Such sounds are also stimulating and help to establish a sense of identification and orientation."[501]

- "Automatic fire alarm systems and automatic shut-offs should be provided on all gas equipment."[502]
- A setting of 110°F. (43°C.) is advisable for domestic hot water.
- Use changes in texture for denoting elevation changes and turns or changes in corridors.
- "In dwellings designed for use by people in wheelchairs, paths of circulation should be simple and direct, with ample space to turn a wheelchair 180 degrees. Doors should be at least three feet wide. Floor surfaces should be smooth and scatter rugs completely eliminated. Highly glossed floors can be psychologically dangerous to the elderly even though the floor may not be slippery. Carpeting makes it hard to maneuver wheelchairs, yet it also cushions falls and provides soundproofing."[503]
- Adequate railings should be provided wherever there are stairs.
- Ramps should have a pitch of one foot for each twelve feet.
- Electric outlets should be placed high above baseboards and light fixtures should permit easy replacement.
- Kitchen counters which are 32-34 inches high are desirable, with openings beneath to accommodate a seated person in a wheelchair.
- Heating systems should be responsive and individually controlled. Heat should be uniform and devoid of "cold spots."

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499 Ibid.

500 Salmon, Christine F. and F. Cuthbert Salmon, op. cit.,

501 Ibid., p. 23.

502 Ibid., p. 23.

503 Ibid., p. 23.

Huttman, reporting on a study of Canadian elderly who had moved to a housing development, stated that major needs in the housing units were for: easy maintenance; a comfortable, modern unit; and a rent that the person could afford.[504] The following table gives the reasons of the older persons for moving to the "development."

TABLE No. 9[505]

Reasons for Moving to Development

Reason	Number Giving Reason*
Felt financially it was best housing choice (including reasonable rent).	105
Unable to keep up maintenance of own home (previous house too roomy).	82
Security and safety.	67
Needed help in cooking, shopping, homemaking.	48
Wanted more comfortable or modern housing than former accommodation.	48
Needed company (formerly lonely, depressed, or isolated).	43
Relatives, social agency, doctor, friends/neighbors, encouraged entry.	40
Needed nursing/medical services.	32
Planned move as part of retirement.	31
Previously living with family who needed room, or made them feel uncomfortable (19 cases), or housing rules made move necessary when spouse died.	28
Preferred location (for example, close to children, relatives, or downtown).	25
Loss of previous home (due to expropriation or financial need to sell).	25
Wanted to be close to other people in development.	23
Too many steps in previous accommodation.	12

*Some residents gave more than one response.

Source: Canadian user survey.

Huttman reported that, "A 1974 estimate was that there were only 400 congregate living complexes in all of the United States. This is in contrast to the 120,000

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[504] Huttman, Elizabeth D., Housing and Social Services for the Elderly: Social Policy Trends, Praeger Publisher, New York, 1977, p. 47.

[505] Ibid., p. 48.

units of new elderly housing a year recommended by the White House Conference on Aging in 1971 in its Housing the Elderly report."[506] She also reported[507] that:

- About five percent of our elderly population (a million people) live in group quarters - nursing homes and homes for the aged or other facilities.
- Most elderly live in housing units (95 percent), not group quarters, and almost 70 percent own their own homes. Less than 30 percent rent their units.
- Almost two million elderly live with adult children.
- Many elderly live alone - over 5.5 million in 1970.

  A number have difficulty cooking, cleaning, and maintaining their homes. "Since the chances of living alone greatly increase with age (over 70 percent of females aged 80 and over are widowed), those elderly most likely to have health limitations are the ones living alone."[508]
- Another group of elderly (41,000) live in boardinghouses, rooming houses, and transient hotels.

Housing deprivation is suffered by many inner city elderly, especially the poor. Nationwide, more elderly live in housing without plumbing than the general public; inadequate plumbing is more likely to be a problem in rural areas. Over half, 58 percent, of elderly-owned houses were built before 1939, even though only 36 percent of all owned houses are that old. Many of the older houses have deteriorated badly.[509]

It is clear that housing is a major problem area for the elderly in our society and, therefore, should be of concern to anyone involved in educating for home and family living.

The Home as a Learning Center

As a result of the increasing sophistication of our communication technology,

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[506] Ibid., p. 49.

[507] Ibid., p. 49.

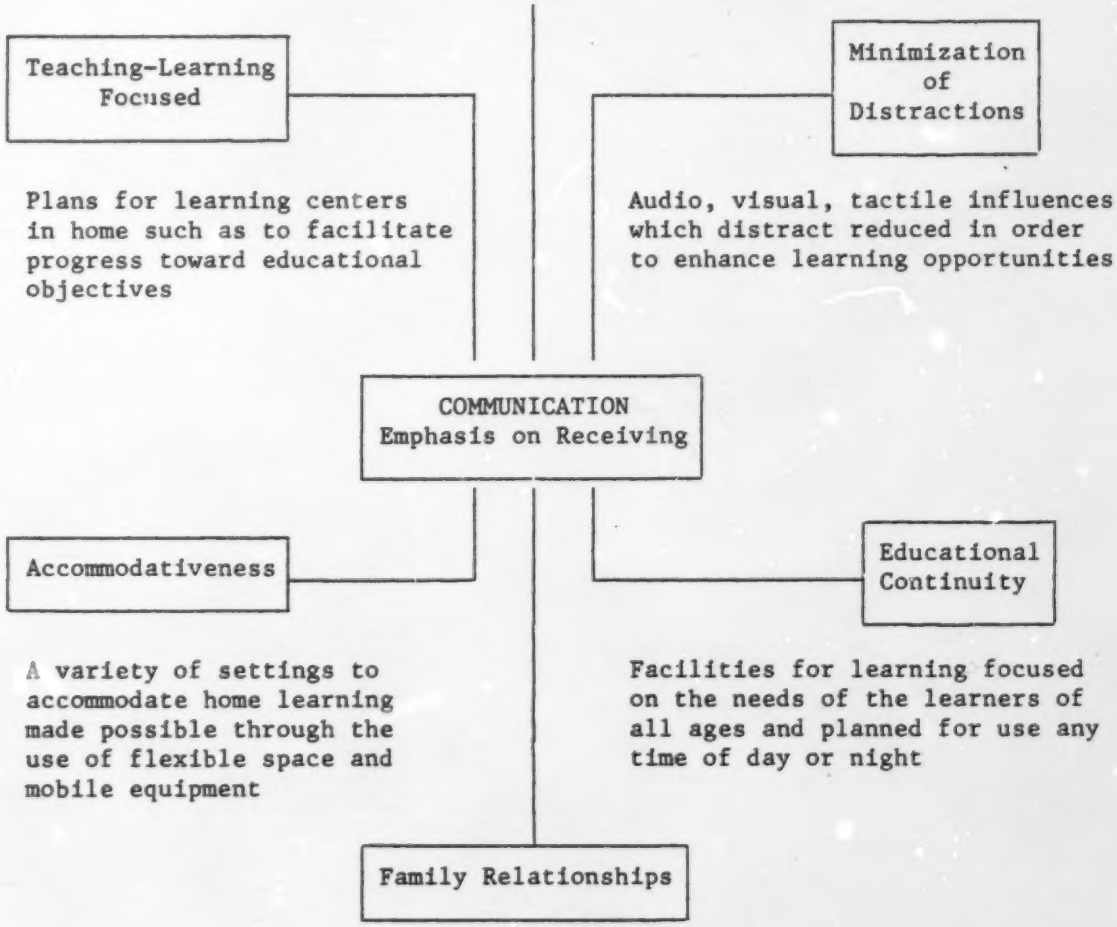
[508] Ibid., p. 49.

[509] Ibid., pp. 50-51.

a new role for the home as a learning center is developing. At its most basic, the learning center may be simply a table and a chair. Most homes can add radio, TV, and some other aids to learning. The idea is organize equipment and supplies for learning activity in one or more spaces designed for the purpose. Key concepts in the home learning center are shown in the following figure.

THE HOME AS A LEARNING CENTER

KEY CONCEPTS*


Teaching-Learning Focused
Plans for learning centers in home such as to facilitate progress toward educational objectives
Minimization of Distractions
Audio, visual, tactile influences which distract reduced in order to enhance learning opportunities
COMMUNICATION
Emphasis on Receiving
Accommodativeness
A variety of settings to accommodate home learning made possible through the use of flexible space and mobile equipment
Educational Continuity
Facilities for learning focused on the needs of the learners of all ages and planned for use any time of day or night
Family Relationships
Facilities and Curriculum such as to enhance and develop relationships within family

* by Elizabeth J. Simpson

A home learning unit might include: desk, storage space for typewriter, tape or cassette recorder, radio, television set, and a hand calculator. Good lighting would be imperative. A movie and slide projector might be added to this unit. A step beyond this would be a home computer terminal. Videodiscs which can be played through the TV set may be added.

The author has developed the following statement of basic concepts regarding the home as a learning center.

THE HOME AS A LEARNING CENTER

BASIC CONCEPTS:

To a greater or lesser degree, the home has served as a learning center throughout the history of man.

Modern technological advances, such as television and audio-video cassettes, make possible increased learning opportunities in the home.

Because our society is characterized by rapid change and by an increasing complexity and diversity and occupations, leisure, home life, and personal life styles are affected, life-long learning for all to meet the demands of change, complexity and diversity is a critical need.

A variety of avenues to learning are needed to meet varied needs, interests, life styles, and modes of learning.

Home study has the advantage of feasibility at all stages in the life cycle, at all social and economic levels, and in all geographic areas.

Learning in the home may supplement learning at school or may serve as an alternative.

A home-based system of education could provide for widely expanded choices of courses and curricula through a variety of instructional media.

Home-based educational programs could be designed to reach young children who are developing concepts of work, leisure, occupational possibilities; to provide for training and retraining for occupational competency on the part of students, employed persons, homemakers and others; to help the older worker find new career direction; to develop competencies needed by both men and women for their roles as homemakers and family members; and to promote the personal development and sense of worth of persons of all ages.

The concept of the "home as a learning center" has implications for the quality of family life through family communication regarding learning opportunities and experiences.

Home study on the part of the parent makes possible the role model of the parent as a "learning person."

Providing for a home learning center may affect family housing and home furnishings.

Family and societal values may be affected in terms of greater emphasis on education if the "home as a major center for life long learning" is truly realized.

Management with respect to family goals, standards, value, resources, and activities will be affected as the home becomes more of a center for learning activity.

The same technology that makes possible "the home as learning center" also makes possible the home as work station. Much work that is presently done in the office could be transferred to the home.

Color Studies Having Implications for the Home Setting

Most people agree that reds, oranges, and yellow are "warm" colors and blues, greens, and purples are "cool" colors. However, research aimed at determining whether there was a thermal comfort response to color yielded negative results.

Corwin Bennett and Paule Rey designed an experiment to test the hue-heat hypothesis. Bennett reported that:

> "If reds are warm, then people who see red surroundings, at a given temperature, should feel warmer than if the surroundings are normal or blue. Similarly, people looking at a blue environment should feel relatively cooler at the same temperature. Experimental subjects were put in an environmental chamber, sitting next to walls, which were changed from 60°F. to 100°F. and back on a given "run." Each subject had three runs. On any run some subjects had red goggles on, some blue, some clear. At one minute intervals the subjects voted on a seven-point scale as to how hot or cool they were. What happened? Nothing. There were no differences among the thermal comfort judgments as a function of the color of the goggles."[510]

In another study "subjects looked for long periods at the wall lighted with different colors. In that study body temperature was measured. Color made no difference."[511]

In yet another study, "a subject performed a simulated driving task in one

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[510] Bennett, Corwin, Spaces for People: Human Factors in Design, Prentice-Hall, Englewood Cliffs, New Jersey, 1977. p. 140.

[511] Ibid., p. 140.

color of light. The subjects were told, 'Oh, by the way, our heat control system isn't working, so please manually adjust the temperature so that it is comfortable.' No difference in heat selection occurred as a function of color."[512]

A research project conducted by Fanger, Breum, and Jerking was concerned with the influence of color on human thermal comfort. They concluded that the effect of color on human comfort is so small that it has hardly any practical significance.[513]

Bennett noted that, although we may decorate a room in warm colors and others may perceive it as warm, we cannot turn down the thermostat just because the room looks warm.[514]

Stimpson and Stimpson conducted a study on the relationship of personality characteristics and color preferences. One hundred and fifty students responded to the Edwards Personal Preference Schedule and ranked color plates from the Luscher Color Test. "Regression analysis yielded no relationships of predictive significance between the two sets of variables. An ancillary analysis using sets of random numbers in place of the color preference data yielded results basically similar to those produced in the earlier analysis. Males and females rank ordered the colors identically except for yellow, which was significantly more preferred by males than females."[515]

In discussing human response to color and light, Birren has stated that "Even among interior designers and decorators, little is known or understood about measurable reactions to color."[516] He reported that:

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[512] Ibid., p. 140.

[513] Fanger, P.O., N.O. Breum, and E. Jerking, "Can Colour and Noise Influence Man's Thermal Comfort?" Ergonomics, Volume 20, No. 1., 1977, p. 11.

[514] Bennett, Corwin, op. cit., pp. 140-141.

[515] Stimpson, David V. and Miriam F. Stimpson, "Relation of Personality Characteristics and Color Preferences," Perceptual and Motor Skills, 49, 1979, p. 60.

[516] Birren, Faber, "Human Response to Color and Light," Hospitals, July 16, 1979, pp. 95-96.

> "Recently, definite responses to color have been recorded with such instruments as the polygraph and the electroencephalograph (EEG). Reactions to various hues have been noted in changes in blood pressure, pulse rate, brain waves, and skin conductance. In general, individuals are aroused by warm colors, such as red. Cool colors, such as green and blue, relax the individual."[517]

At the 13th Advanced Seminar on Clinical Ecology, San Diego, October, 1979, Schauss reported on the tranquilizing effect of a specific shade of pink. He reported:

> "It has been discovered that the use of a specific shade of pink can have a moderating effect on subjects experiencing feelings of anger or agitation. The calming effect of pink if appropriately applied, relaxes hostile or agitated behavior in approximately ten to fifteen minutes."[518]

Schauss presented considerable support for his conclusions including experiences with inmates in a pink holding room in a correctional center. Although there had been problems with new inmates previously, 156 days after the room was painted pink, no incidents of erratic or hostile behavior had occurred. The effects continued for fully 30 minutes after release from the cell.[519]

Schauss has concluded that, "The use of color in tranquilizing aggression and potential violence has many implications and is opening up a new frontier of behavioral technology heretofore not seriously considered."[520]

Studies involving the color, pink, with violence-prone families would seem worth pursuing.

Energy Conservation and Housing

"The...benefits of energy conservation in households and other places of

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[517] Ibid., p. 96.

[518] Schauss, Alexander G., "Tranquilizing Effect of Color Reduces Aggressive Behavior and Potential Violence," Orthomolecular Psychiatry, Volume 8, No. 4, 1979, p. 218.

[519] Ibid., p. 219.

[520] Ibid., p. 220.

daily activity fall into four principal categories: conserved energy, money saved, increased comfort, and increased value."[521]

A major goal in conserving energy is better winterizing of buildings, including homes. "Savings on individual dwellings can be significant and will vary according to the size and type of structure and conservation steps taken."[522]

Actions taken to increase comfort may also serve to conserve energy. Proper use of the thermostat is important. The thermostat should never be set higher than the temperature that one hopes to achieve. Uniform winter temperatures should be maintained both for reasons of comfort and conservation. Additionally, steps taken to reduce drafts will promote both comfort and energy conservation. Further comfort may be realized through the preservation of essential household humidity.[523]

Energy-saving installations represent a capital investment that may pay for themselves in two to seven years. "These could include storm windows, storm doors, weather stripping, increased or improved qualities of insulation, and automatic door closures."[524]

If property is sold or leased, a good record with respect to the energy requirements of a given housing unit in relation to the energy use for comparable structures should prove to be a plus factor. Capital investments made to conserve energy may be recovered when property is sold.[525]

The following table shows the anticipated impacts of energy conservation on new housing design.

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[521] Benefits of Energy Conservation in Households, Extension Energy Committee, Division of Economic and Environmental Development, University of Wisconsin-Madison, p. 1.

[522] Ibid., p. 2.

[523] Ibid., pp. 2-3.

[524] Ibid., pp. 3-4.

[525] Ibid., p. 4.

Table 10

Anticipated impacts of energy conservation on new housing design.[526]

Housing type

Smaller, higher density, fewer detached houses
Increased shift to townhouse and low-rise from single-family detached
Diminished relative attractiveness of mobile homes in life-cycle cost terms
Improved designs with lower unit demands will help keep fossil fuel economically competitive in many areas for years to come

Architectural features

Thicker wall (cavity and sandwich) and roof construction for more insulation
Fewer picture windows, more double- and triple-glazed windows, some specially coated glass
More functional windows — designed as passive solar collectors
Tighter, better sealed joints, higher performance sealants, better workmanship
Better control of moisture to protect insulation
Attention to shape, orientation, landscaping in design
Control of air movement between floors — fewer open stairwells and split-level designs
Insulated foundation walls in cold climates
Greater thermal resistance for more expensive fuels, such as electric heating
Better thermal comfort and greater acoustical privacy.

Mechanical systems

Smaller, more efficient HVAC* equipment, better load matching
Customized ventilation to provide outdoor air when and where needed
Widespread use of heat pumps in moderate climates — integrated heat pump and solar heating
Solar space heating in selected climates where gas and oil are in short supply
More zoning and multipoint control systems in larger residences
Electrical load management control options for hot water and appliances
Solar water heating in the south

Institutional

Life-cycle cost-based performance standards (voluntary or mandatory) for new housing design
Labeling of houses, equipment, and appliances for energy use, cost, and performance
Householders knowledgeable of how to operate homes efficiently

* Heating, Ventilating, Air Conditioning

Solar Heating for Homes

A fact sheet on solar heating from the Extension sevice of the University of

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[526] Suell, Jack E.; Paul R. Achenback; and Stephen R. Petersen, "Energy Conservation in New Housing Design," Science, Volume 192, June, 1976, p. 1310.

Wisconsin-Madison has supplied valuable information on solar heating of homes.[527] The following questions and answers were given.

1. *"How much heat energy is available from the sun?*
   The intensity of solar energy perpendicular to the sun's rays is about 350 BTU's per square foot per hour at the earth's surface on a clear day. The energy falling on a south-facing roof on a clear day is about 2,500 BTU's per square foot of surface area per day.
   (Note: The quantity of heat produced by any heating method is measured in British Thermal Units (BTU's). A BTU is quantity of heat required to raise the temperature of one pound of water one degree F. at or near 39°F.)

2. *"Can a good solar heating job be done in Wisconsin?*
   It appears practical to supply 2/3 to 3/4 of the winter heating needs of a house in Wisconsin with solar energy. Installing a collector and storage twice as large as those commonly used would not provide 100 percent of the heating requirements of a house in Wisconsin because such a system would still not be able to take care of the long cloudy periods that occur in a typical winter. A house must have a complete conventional heating system to take care of such periods.
   (Home Economics teachers in other states may obtain comparable information through the Cooperative Extension programs of the state.)

3. *"How is solar energy collected?*
   Solar energy warms a collecting surface. Air or water moving past this surface becomes warm. Coverings of glass or plastic and insulation underneath the collecting surface reduce heat loss. Collectors are now available that have an absorbing surface, ducts for carrying the medium to be heated, and means for reducing heat loss.

4. *"How large a collector is needed for house heating?*
   Present designs use approximately one square foot of collector surface for every two square feet of living space in the house. This size is determined primarily by the economics of larger or smaller sizes, which in turn is affected by the cost of other energy sources for house heating.

5. *"How is the energy stored?*
   Storage systems are usually located in the basement. Heated water is stored in an insulated tank. If air is the heating medium, it passes through an insulated bin of rocks, where its heat is retained.

6. *"How large a storage is needed?*
   The size is determined by the temperature-holding capacity of the material used and the number of cold, cloudy days for which the storage must provide heat for the house. About one cubic foot of rock is needed for every square foot of collector, or about two gallons of water for every square foot of collector.

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[527] Brevik, T.J.; F.T. Buelow; and J.A. Duffie, Solar Heating for Homes, University of Wisconsin-Extension, University of Wisconsin, Madison, Wisconsin.

7. *"What special features must a house have to use solar energy?*
   There must be available space on or near the house for construction of the solar energy collecting system. Space is also required in the basement for the storage system.

8. *"What else should be done to assure efficient heating?*
   The first step in efficient house heating by any means is to minimize the heat loss. Wall and ceiling insulation, storm windows and doors, and weather stripping and sealing should be installed or repaired as needed.

9. *"What does a solar heating system cost?*
   The cost of a solar heating system includes the cost of the collector, the ductwork or piping, the storage unit, a fan or pump to circulate the air or water, and a control system. Costs of these items vary considerably, but represent very roughly 15 percent of the total cost of a house. Operating costs consist essentially of the power for the fan or pump.

10. *"Can I get domestic hot water from solar energy?*
    Yes. This is a standard means of heating water in such places as Australia, Japan, and Israel. Before planning solar water heating installations, you should check plumbing codes to assure that the proposed system is not in violation."

Underground Housing

There is a developing interest in underground homes, which, according to Ray Wolf, writing in Organic Gardening, are "naturally cool in summer and warm in winter, save energy, feel nice to live in, are economical and very safe, and minimally disrupt the natural landscape."[528] Schramm and Klodt, in a fact sheet on underground housing state that:

> "For most people 'underground' housing conjures up images of caves or musty city sewers. Yet nothing could be further from the truth. Underground building — often called earth-sheltered or subterranean architecture — need not be any colder, wetter, or darker than houses built above-ground. In fact, anyone who has a basement family room already uses underground space."[529]

Schramm and Klodt, who are respectively, a specialist in Engineering and an environmental designer, indicate that properly designed and built underground housing

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[528] Wolf, Ray, "The Good Feeling of Living in the Earth," Organic Gardening, December, 1978, p. 58.

[529] Schramm, Donald R. and Gerald Klodt, Underground Housing: Some Questions and Answers, Cooperative Extension Programs, University of Wisconsin-Extension, Madison, Wisconsin, March, 1980, p. 1.

can be as comfortable as and consume less energy than a conventional home.[530] The possible disadvantages include: problems with making future building additions, the lack of architects and builders experienced in underground design and quality control during construction, and possible difficulties in obtaining construction and mortage financing for an unconventional structure. Moisture from the outside may be a problem if proper waterproofing techniques and products are not used.[531]

It appears that recent interest in underground housing is sufficient to merit some attention, at least at "awareness" and "exploration" levels, in Housing and Home Furnishings study in Consumer and Homemaking Education.

Buying a Home: General Guidelines

Kristelle Petersen, author of The Single Person's Home-Buying Handbook, published by Hawthorn-Dutton, offers ten points for a single to think about in buying a home.[532] Her guidelines are useful for anyone contemplating purchase of a home. The guidelines follow:

> "Since buying a home is a high-stakes purchase, take the time to learn the real estate process and the specific place and purpose of each professional who takes part in the transaction — broker, builder, lawyer, insurance agent, etc. — so you will not lurch from crisis to crisis or make major decisions based on impulse, emotion or hard-sell techniques.
>
> "Chart a rational course for scouting for a home. Think through carefully what your life style is, what your values are and what your basic needs may be. (Do you entertain a lot? Require guest bedrooms? Want a maintenance-free home? Insist on a fireplace, basement or attic?) Then make a list of those things that you consider essential to your complete sense of home, and those things on which you feel you could compromise. Keep this list with you at all times and stick to your priorities as you evaluate properties.

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530 Ibid., p. 1.

531 Ibid., p. 1.

532 Quoted in Hoffman, Marilyn, "Single Home Buyers: Look Before you Buy," (reprinted from Christian Science Monitor), Wisconsin State Journal, October 26, 1980, p. 16, Section 5.

- "Educate yourself to your local housing market without the pressure of a broker or salesperson at your elbow. Familiarize yourself with all the types and locations of homes available in your price range. Read real estate sections of newspapers, shopper publications and community real estate booklets. Let friends, relatives and work associates know the type of housing you are looking for. Look at model homes and go to open houses to see the range of going prices. Cruise through neighborhoods, and when you find one you are comfortable in, stop and chat with a few residents and inquire how and why they like it.

- "Figure out your home-buying budget in advance, because home ownership requires most people to make a sacrifice and often to trade some travel and other leisure-time pleasures for the joys of 'a place of my own'. Since monthly housing costs probably will double when you buy a home, it is important to calculate how much of your income you can allocate to housing. On the average, single buyers who paid rents between $260 and $390 make monthly house payments of $500 to $640. If you would feel trapped by your own house, don't buy.

- "Examine all types of housing, including co-ops, condominiums, town houses, patio or zero-lot-line homes, single-family houses and less expensive older homes that could be rehabilitated. Check out advantages and disadvantages of each. Check mechanical and electrical systems. Find out if there is consumer-protection legislation in your area. Consider the energy efficiency of each prospect, find out if it is well insulated and constructed, what the utility bills may average, what the taxes might be and how stable the surrounding neighborhood is. All these factors will affect your pocketbook and the manner in which you live.

- "When you find a house that pleases you, hire a good home inspector to check it out and give you a report. Engineers, architects and members of the American Society of Home Inspectors usually are qualified to do this job, and charges may run from $50, or less, to $200, depending on the time involved and whether written reports are required. Join the expert on his inspection tour over the property, if possible, so you can see and understand what is good and bad about the wiring, plumbing, structure, etc.

- "Consider transportation costs carefully, since gasoline and public transport commuting costs have risen steeply and can add greatly to living expenses and frayed dispositions when a lot of time and wear and tear is involved.[533]

- "Really think about whether you have the time or inclination to do yard work, or the money to hire it done."

Environment for Family Living: The Next Twenty Years

What is ahead in housing and home furnishings in the next 20 years? A preview of what to expect was undertaken by the staff of the U.S. News Washington Letter and reported in U.S. News and World Report, December 1, 1980.[534] Their

[533] Ibid., p. 16, Section 5.

[534] "Next 20 Years," U.S. News and World Report, December 1, 1980, pp. 54-55.

predictions, relative to the home environment, follow.

- Eighty percent of dwellings will have home computers by 1990 — for doing office and school assignments, the family budget, etc. The cost will go down.
- Transformations in housing will be enough to fill books. Smaller, but attractive residential units are predicted.
- More houses will be factory-built and engineered to save energy. Extra insulation, solar panels, and computers to monitor heating and cooling will be featured.
- More attention will be given bathrooms. More saunas, sunlamps, and contoured tubs will be included.
- Much higher prices of homes are coming.
- Apartments afloat or underground — with "TV windows" to the world above — are anticipated.
- More and more people will work at home — away from downtown offices.

IMPLICATIONS FOR CONSUMER AND HOMEMAKING EDUCATION

In recognition of the significance of housing and home furnishings to the well-being of the family unit, increased attention in Consumer and Homemaking Education should be given this area of study. In particular, emphasis should be given at post-secondary and adult levels and in the senior year in high school. Earlier than that, much of the content is too remote in time and space to motivate much interest — whereas other areas of content are of immediate concern.

Content in the Housing and Home Furnishings area of study should include:

- *the meaning of "home"*
- *providing an environment conducive to individual and family development*
- *selecting a home in view of family needs, values, and resources*
- *influence of housing and home design on individuals and families, including their health and relationships*
- *housing needs at different stages of the life cycle and with respect to family form*
- *the emerging role of the home as a learning center and as a work center*
- *furnishing the home — selection and arrangement of furnishings*

- *energy conservation and housing*
- *new developments in housing — such as underground housing*
- *the legal and financial aspects of housing — renting and buying a home*
- *projections in housing in relation to the building, household equipment and furnishings*

In addition, moral and ethical issues related to the need for adequate housing for all the peoples of the world should be included in the curriculum.

THE SOCIAL AND EDUCATIONAL CONTEXT OF CONSUMER AND HOMEMAKING EDUCATION

The major purpose of the effort which eventuated in this paper was to determine what people will need to know in the 80s and beyond to be intelligent consumers and effective homemakers. It is obvious that such knowledge constitutes content for the vocational Consumer and Homemaking Education program. Hence, this section of the paper is concerned with a broad view of the social and educational context of Consumer and Homemaking Education. It is presented in order to make more meaningful the recommendations regarding "what people will need to know" — that is, what should be taught in Consumer and Homemaking Education.

Consumer and Homemaking Education is concerned with the stuff of everyday life, such as interactions among family members, development of children, selection of goods for individual and family use, management of resources, and provisions for the material and emotional needs of family members. All of these matters of daily family life are affected by what happens in the larger society. And, in turn, what happens in family life affects what happens in the larger society.

It cannot be emphasized enough that home economics, if it is to provide meaningful education, must be responsive to changing social conditions and needs. Hence, it is imperative that teachers and supervisors in the field keep abreast of what is going on in the larger society, as well as in home and family life, today.

The Social Context

Rapid change and complexity characterize society today and in the foreseeable future. These suggest need for greater emphasis in education on problem-solving proficiency, diagnostic skill, decision-making, adaptability, flexibility, creativity, and the ability to draw sound conclusions.

Of particular interest to those in Consumer and Homemaking Education are the changes in family life today — notably, the diversity in form, the changing

roles of men and women, the larger proportion of aging members and a decrease in the number of children and youth. Stress in family life results from the complexity of life today; rampant inflation; high unemployment, especially among some groups; and value conflicts in many facets of our lives. Current emphasis on personal fulfillment — at its extreme, damaging over-concern with self — is a force which has implications for the family and its relationships and for society beyond the family.

Consequences for American life are apparent in the interdependence of the nations of the world. Individuals and families cannot escape a share of responsibility for peoples of other groups and nations and their well-being, as well as for our own people. Understanding the nature of this responsibility is an objective at all levels of education and in all subject fields. Other aspects of the social context of Consumer and Homemaking Education include energy shortages; pollution of the environment; developments in the media of communication — with all of the related opportunities for learning and development and the concomitant possibilities of mutilation of the individual through tasteless appeals to lowest impulses, through value manipulation via seductive advertisements, and through "images" which are distant from reality; the increasing use of computers with potential for greater efficiency — and for loss of personal privacy; the rise of the "prosumer" as exemplified in self-service and self-help activities and production by the consumer of the products for his own consumption; changing occupational requirements; population mobility, which may be slowed down by energy shortages; population density in urban areas; and persistent malnutrition even where there is affluence.

Expected to characterize the 80s is an increased interest in family and traditional family values. This is good news to those concerned with the improvement of the quality of family life.

Given the characteristics of today's society and projections for the foreseeable future, it seems clear that in the 80s and beyond people will need to know a

great deal more about: the dynamics of family life and how to build the kind of family life that supports the development of its members as responsible human beings — family members, parents, citizens; the skills of parenting and the responsibility for all children; how families can make the transition from an industrial to a postindustrial society; the rights and responsibilities of consumers; consumer coping skills; the concepts and principles of management applied to home and family situations, and how to meet the nutritional, clothing, and housing needs of family members in ways that are responsive both to family and social needs.

The Educational Context

Consumer and Homemaking Education is one of the major educational programs of Home Economics at secondary, post-secondary, and adult levels. The other is a Home-Economics related occupational program which prepares individuals for paid employment. There is research evidence to support the statement that most of the knowledge needed for the related occupations are also needed by homemakers. Major differences are that (1) Consumer and Homemaking Education is focused on families and individuals in the context of family, whereas the wage-earning program focuses on services to families and individuals through the employment situation, (2) Consumer and Homemaking Education is concerned with the problems of families and the integration of knowledge from the substantive areas of Home Economics in responding to these problems, and the wage-earning program focused on specialized knowledge and skills in several areas of employment, such as child care, food service, and clothing services, and (3) Consumer and Homemaking Education addresses the needs of individuals and the family unit and the wage-earning program addresses needs of larger groups, *such as* groups of children in child care centers and customers of restaurants.

Although there are differences between vocational Consumer and Homemaking Education and the Home-Economics Related Occupational program, the commonalities

with respect to knowledges, abilities, and attitudes are many. Therefore, the two should be thought of as two aspects of one program rather than two distinctly different programs. This is both educationally sound and more cost-effective than the alternative.

Consumer and Homemaking Education as a part of vocational education includes: family living and parenthood education, child development and guidance, consumer education, home management, housing and home furnishings, food and nutrition, and clothing and textiles. A complete Consumer and Homemaking Education program includes all of these in an appropriate balance and with appropriate emphasis within the areas, in consideration of: social, economic, and cultural conditions, projections, and needs; characteristics and needs of the learner served by the program; and the newer knowledge in the identified program area and relevant research in the root disciplines on which they are based.

Education for home and family life, including consumer education, should be realistic in terms of the real needs of families. It should be based on carefully considered values which give direction and substance — such values as those embodied in the Democratic Ideal[k] It must be accommodative to new needs as they arise in response to changing social conditions.

Education for home and family life is education for both sexes and for all stages of the family life cycle, each with its special problems and needs. It is primarily a program of problem prevention rather than remediation.

For the sake of organized learning of reliable information and the opportunity to explore problems in appropriate depth (depending on the readiness and needs of the learner), such educational programs belong in the School. Related outreach programs and activities must extend into the community and into homes. And linkings with other educational and social programs having like purposes should be developed and maintained.

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[k] Footnote: See page two of the first section of this paper.

In the School, Consumer and Homemaking Education classes belong at secondary, post-secondary, and adult levels. Additionally, learning activities in home economics-related areas are appropriately included at the elementary level.

For the following reasons, briefly stated, Consumer and Homemaking Education belongs in Vocational Education at secondary, post-secondary, and adult levels:

- It prepares for the occupation of homemaking, which is a full-time occupation for some and a part-time occupation for all.
- It is supportive of occupational competency through its programs aimed at strengthening the homes from which workers go out to the world of work.
- It may have a humanizing influence on the rest of vocational education.
- There is a large body of common content shared by the Consumer and Homemaking Education aspect of Home Economics and the wage-earning aspect. The commonalities have implications for curriculum and program development and administration of Home Economics programs.

SUMMARY

The purpose of this paper is to examine, in each of the substantive areas of Consumer and Homemaking Education, newer knowledge in the field; relevant social changes, including changes in family life; related technological developments; and predictions related to the content area, and to draw implications for what people will need to know in the 80s and beyond to be intelligent consumers and effective homemakers. Following is a summary, for each content area, of the major findings, which were outcomes of the searches for and examination of relevant materials, and conclusions regarding what people will need to know — and, hence, what is appropriate content for Consumer and Homemaking Education.

Family Life

A reassertion of traditional family values is underway and may be expected to characterize the 80s. There is a renewed interest in the family and the quality of family life. Energy shortages and inflation, as well as changing values, appear to have effected this renewed interest.

Characteristic of today's family are: diversity in structure; low birth rate and postponing of parenthood; high and increasing numbers of women working outside the home; changing sex roles; increased numbers of teenage pregnancies; increase in single parent and single person families; high level of family violence; high divorce rate; increased number of elderly in the population, with many living as single person families; large numbers of abortions; alcohol and drug abuse major family problems; and a new emphasis on self, which, at its extreme, may be a damaging over-concern.

Inflation and high levels of unemployment, particularly among some groups, add stress and tensions to family life. The rapidity of social change and the complexity of modern life are conducive to stress on the family and its individual members. However, given all of the pressures on the family, it continues, in its

diversity of forms, as a powerful and precious social institution.

Exciting to contemplate are the prospects of increased study and work in the home made possible by the increasing sophistication of our communication technology. Some have predicted that the next major home appliance will be the computer and that this will bring about major changes in home-centered activity. The rise of the "prosumer,"[535] involving producing more of what one consumes and a wide variety of self-help activities, contributes to increasing focus on home and family.

In view of the foregoing, people in the 80s and beyond will need to understand and appreciate:

- the meaning of family,
- the family life cycle,
- how human beings develop across the life span,
- how family life can contribute to the fullest development of its numbers across the life span,
- the diverse modes of family life and how they contribute to the developmental needs of their members,
- the contributions and needs of all family members, including the elderly,
- how families can help meet the material, social, emotional, and intellectual needs of their members,
- how people can relate to others in ways that fulfill mutual needs and enhance the development of self and others,
- how to enrich marriage and family life,
- responsible sexual relationships,
- the responsibilities of parenthood and parenting skills,
- the effects of family crises, such as divorce and violence, on children and adults in the family,
- the effects of drug and alcohol abuse, and smoking, on children and adults in the family,
- changing sex roles and their meaning for family life,

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[535] Toffler, Alvin, "The Rise of the Prosumer," Chapter Twenty, pp. 282-305, in The Third Wave, William Morrow Co., Inc., New York, 1980.

- problem-solving methods and coping skills applied to family situations
- the family in relation to the world of work — considering economic factors, life styles, quality of life, personal satisfactions, and projections for future,
- how the family influences and is influenced by other social institutions,
- how families can cope with outside pressures, for example, peer pressures for conformity and advertising that arouses more "wants" than one's income can satisfy,
- narcissistic life styles and their effects on others,
- how to influence public policy issues that impact on the family,
- how to analyze and come to responsible considered decisions regarding ethical issues related to the family, and
- how legislation affects family life and ways of influencing legislation and public policy.

Child Care and Development

Today's major concerns in the area of child care and development center around: alternative child care arrangements, need for which have been sparked by increasing rates of single parenthood and maternal employment; high rates of child neglect and abuse; the effects of television, particularly TV violence, on children and their families; uncertainty on the part of parents as to how to support the fullest development of their children; self-centeredness and narcissism in American society, perversions of a healthy concern for self-development; and the role of parents vis'-a'-vis' the experts in matters of child care.

Little research data are available on the effects of home versus day care of children. Studies suggest that day care has neither salutary nor adverse effects on the intellectual development of most children as measured by standardized tests; however, for economically disadvantaged children day care may have an enduring positive effect. There is a need to assess the impact of day care on functional intelligence in real-life settings.

Studies of home care/day care differences in children's attachments to their mothers, important for emotional development, are contradictory. Further research

is needed.

That day care predisposes children toward greater aggressiveness, impressiveness, and egocentrism is a finding of research. It has been suggested that this phenomenon may be specific to American society.

Studies at the University of Wisconsin-Madison have led investigators to the conclusion that a formal, structured early childhood educational program enhances intellectual development to a greater extent than a less structured, open-framework program. However, more research is required before firm conclusions can be drawn regarding what kind of programs are effective, when, and for whom.

Television violence is a matter of concern in child development. There is mounting evidence that televised violence inclines children to be more violent and makes them less responsive to violence when it occurs.

Child abuse is a national disgrace, along with other problems of family violence. There is conclusive evidence that the abused child grows up to become the abusing parent unless the institutions of society intervene through education and programs of prevention and treatment.

Americans tend to be generous in contributing to good causes, yet a pervasive self-centeredness characterizes the American social scene today. This is perhaps related to suspicion and doubt about the American economy and the political system and a felt need to look to one's own resources in getting the best personal "deal" possible. How to move from narcissism to a broadened concern for others, for social needs, and for tomorrow and yesterday as well as today is an American problem and issue. It should be of special concern in relation to the moral and ethical development of children.

In relation to Child Care and Development, people will need to understand:

- how children develop, beginning with conception,
- the principles of growth and development,
- the responsibilities of parenthood,

- the role and responsibilities of the care-giver,
- the child in relation to his or her family,
- care and guidance of children,
- the effects of TV on children and how to select suitable TV programs and deal with the negative aspects,
- how to select suitable day-care settings for the child,
- play and play materials in child development,
- how to learn from observing children,
- how to help children develop interest in and concern for others,
- the home environment that best supports the child's development, and
- the need and responsibility for and ways of supporting the well-being and development of all children.

Understanding of self is a desired and anticipated outcome of gaining understanding of children and their development.

Consumer Education

Today's consumer is making his or her early adulthood consumption decisions in an era characterized by inflation, materials shortages, pollution problems, energy crises, unprecedented government regulation of the marketplace, and a developing ethic of resource conservation and environmental protection. He or she is torn between the "wants" stimulated by industrial age marketing and the "oughts" supportive of societal environmental concerns.[536]

The post-industrial age consumer, who will reach adulthood sometime after the year 1990, will be concerned with *efficient and responsible* consumption. This consumer will buy only those products supportive of the ecosystem in which she or he lives.[537]

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[536] Stampfl, Ronald W., On Educating the Post-Industrial Consumer, Working Paper, School of Family Resources and Consumer Sciences, University of Wisconsin-Madison, pp. 4, 5, and 6.

[537] Ibid.

Studies are underway on the following consumer elements related to stages in the family life cycle: consumer characteristics, typical products and services, marketplace concepts and knowledge, marketplace skills, typical marketplace problems, and level of resources (time, income, and human energy). These studies are beginning to yield information which will be helpful in determining what people will need to know at each stage in the life cycle in order to be intelligent consumers.

The "rise of the prosumer" is of interest here. This is discussed by Toffler in The Third Wave.[538] He sees a rise of a new prosumer in such phenomena as: do-it-yourself physical examinations and medical treatments; self-help groups; self-service in stores, banks, etc.; and increased home repairs and construction by non-professionals. Toffler points out that a new, more wholistic conception of our economy will need to be developed — a conception that includes both the sector which comprises the work people do for themselves and the market or exchange network sector.

Related to the prosumer concept is the growing popularity of "bare-bones" grocery stores, which eliminate many of the usual services, and the increase in use of generic food and drug products. Today's extensive use of coupons, refunds and free gift offers may also be seen as related to prosumerism.

The importance of electronic fund transfers should be noted. This is a payments system in which the processing and communications necessary to effect economic exchange, distribution of services incidental or related to economic exchange, are dependent wholly or in large part on the use of electronics. An expansion of EFT services may be anticipated.

Home computer use is expected to increase significantly as computers get smaller and easier to use and as the price drops — which is happening. As a tool

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[538] Toffler, op. cit., pp. 282-305.

to aid the consumer, the home computer will become increasingly significant.

In the years ahead, and as a result of inflation, scarcity of resources, increasing interdependence among peoples, and pollution of the environment, "families will be challenged to examine the values that underlie their consumption patterns and to develop new solutions for improving their quality of family life. Adjustments in financial management based on sharing and cooperation, a renewed commitment to conservation, and simplicity of life-styles are recommended."[539]

In order to be intelligent consumers in the 80s and beyond, people will need to understand:

- the dimensions of consumer choice,
- how to analyze individual and family needs for goods and services,
- how to make consumer choices which best meet these needs and which are not environmentally negative and which do not infringe upon the rights of others,
- where and how to obtain information about consumer products and their use, as well as consumer protection,
- how to decide when to produce and when to purchase what one consumes,
- how to analyze and use advantageously current retail marketing strategies — such as cash-off coupons and refunds, gift offers, discount offers, "warehouse stores," and generic products,
- how electronic fund transfer serves consumer needs,
- how home computers may serve consumer needs,
- consumer rights and responsibilities,
- processes of decision-making,
- the role of values in consumer decisions — and the sources of values, how the values held by individuals and families (and a society) impact on oneself and others, and how changing values trigger other changes,
- moral and ethical considerations with respect to energy use, use of other resources, pollution of the environment, and dealings in the market place, and

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539 Hogan, M. Janice, "Family Adjustments in Financial Management," Talk at the 1980 Agricultural Outlook Conference, Washington, D.C., p. 6.

- the impact of individual and family consumer decisions on others, both in the United States and in other countries.

Home Management

Management has a fundamental role in helping families fulfill their purpose, defined by management specialists Deacon and Firebaugh as "the maintenance of members and ... providing a setting for personal and interpersonal growth and development."[540] Principles of management applicable in every area of home and family life and at every stage in the family life cycle have been identified. These constitute important understandings for effective homemaking and intelligent consumption in the 80s and beyond.

A number of home mangement studies have focused on the use of the resource of time. There appears to be some increase in the amount of time spent by husbands in household work and nonphysical care of family members. Some increase in children's contributions to household work also have been found. Women, whether employed or not, still spend a great deal of time on the work of the household.

A study concerned with perceived quality of life in relation to a more traditional[1] or less traditional[m] division of household work yielded no significant differences. The researchers suggest that their findings indicate that a family's quality of life is not just a function of the division of household labor but may relate to such factors as age, income, education, affection between spouses, stage of family life cycle, or subcultural values concerning the sharing of household work.[541]

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[540] Deacon, Ruth E. and Francette M. Firebaugh, Family Resource Management, Principles and Applications, Allyn and Bacon, Inc., Boston, 1981, p. 18.

[541] Goebel, Karen, Charles B. Hennon, and Norleen M. Ackerman, "Time Use in Family Life: Does Household Division of Labor Make a Difference in Perceived Quality of Family Life," Unpublished paper, School of Family Resources and Consumer Sciences, University of Wisconsin-Madison, 1980, 4 pp.

[1] Footnote: More traditional meant that the wife spent more than the mean amount of time on household work calculated for the entire group of wives in the study.

[m] Footnote: The wife was below the mean in time spent.

The fast pace of inflation underlines the importance of budgeting and record-keeping for tax purposes. At the present time, 37 states plus Washington, D.C. have specific laws or statewide policies that require or encourage "consumer education" in several areas including personal finance, involving principles of buymanship and money management.

The home computer for use in year-round record maintenance, keeping track of checkbook balances, budgeting, investment information, and the like may be the next major home appliance. Home computer use is expected to increase as the price comes down, and, interestingly, a price reduction is coming about.

Because of resource scarcity and fluctuation and the way in which resources are distributed, inflation, population increases, population changes (for example, the increasing number of older persons who will be supported by a decreasing number of young and middle-aged workers and families), and changing family goals (an apparent new valuing of family and interest in spending time with family within the home), a need for greater simplicity in life style in the decade ahead has been suggested. The emerging life style has been referred to as one of "voluntary simplicity" consisting of self determination, ecological awareness, material simplicity, and practical living and working environments.[542]

In relation to home management, people in the 80s and beyond will need to understand the following and their applications in order to be effective homemakers and intelligent consumers:

- the purposes of home and family resource management.
- the processes of planning, decision making, and implementing.

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[542] Elgin, D. S. and A. Mitchell, "Voluntary Simplicity: Life Style of the Future?" The Futurist, August, 1977, pp. 200-209 and 254-261.

- the concepts of demands, goals, and events in relation to home and family resource management.
- values and standards and their roles in decision-making.
- the nature of the resources available for meeting individual and family demands.
- how changes in family structure, function, and roles of family members influence management decisions in the family.
- coping skills in relation to inflation, energy shortages, and the complexity of life today.
- budgeting and record keeping.
- how home computers may serve the management needs of families.
- the social need for greater simplicity in life style and how to achieve this goal.

Nutrition and Food

Food is a basic human need with which all families are concerned. In fact, a recent study found that 80 percent of all food tonnage goes through the home.

The field of nutrition and food is one in which research continuously yields new information which should be incorporated in educational programs aimed at improving the nutritional status of individuals and families and satisfying the desire for aesthetically pleasing meals. Food and nutrition have moral, ethical, political, ethnic, and religious dimensions which have been given limited recognition in school programs in food and nutrition, but which merit increased attention.

New information regarding dietary needs was presented in the 1980 RDA (Recommended Dietary Allowances) tables published by the Food and Nutrition Board, National Academy of Sciences--National Research Council. In 1980, USDA and HEW jointly issued dietary guidelines for people in the United States. The recommendations were developed primarily to effect a lowering of the incidence of obesity, heart disease, high blood pressure and dental disease. These guidelines follow:

DIETARY GUIDELINES FOR AM[illegible]ICANS

- Eat a variety of foods
- Maintain ideal weight
- Avoid too much fat, saturated fat, and cholesterol
- Eat foods with adequate starch and fiber
- Avoid too much sugar
- Avoid too much sodium
- If you drink alcohol, do so in moderation

Studies are underway to clarify relationships between diet and the degenerative diseases of aging. The future should provide more enlightening information about these complex relationships.

The Food and Nutrition Board of the National Research Council reports that obesity is the most common form of malnutrition among the well-nourished peoples of the world. It is recognized as a major public health problem because of its association with many serious chronic degenerative diseases. The incidence of obsity appears to be increasing. Causes are still obsure. Research on obesity and its causes continues to yield important information for dietary specialists and the public.

Recently anorexia nervosa has claimed a great deal of attention. This is an eating disorder, accompanied by psychological problems, in which individuals starve themselves. Teenage girls have been particularly prone to this disorder. Characteristics of anorexics include:

(1) distorted notions regarding body proportions and body concept,

(2) failure to recognize nutritional need, and

(3) a sense of ineffectiveness.

This is a serious disorder requiring medical attention.

A recent study[543] reveals some significant shifts in food consumption patterns in the United State[illegible]. Findings include: a decline in the in-home food consumption per household; an increase in breakfast-skipping and breakfasts eaten away from

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[543] National Household Menu Census done by the Market Research Corporation of America, reported in: Stowell, Channing, "Marketers to Fight for Declining In-Home Section as Food Consumption Patterns Change," Food Product Development, Vol. 13, No. 12, December, 1979, pp. 95-98.

home; an increase in skipped lunches and "brown-bagging"; a decrease in skipping of dinners; an increase in meals away from home across all age segments; some decline in snacking; and greater simplicity in in-home meals. Given the increase in meals eaten away from home, it is still true that most meals are eaten in the home--52 percent of lunches, and 80 percent of dinners.

Concerning what we eat, the study found: an increase in wine and soft drink consumption in the home and a decrease in milk and coffee consumption; an increase in meat consumption, except for processed meats, away-from-home; a great increase in consumption of those products that combine meat with other ingredients, primarily starches and vegetables; increase in pasta and rice consumption; a decline in consumption of candy, cakes, cookies, puddings, gelatin and ice cream and an increase in the eating of fruit, nuts, popcorn, and fruit; total cheese consumption increase; less use of presweetened and hot cereals in the home and more use of non-presweetened cereals; and a decline in egg consumption.

More than a majority of people in the United States live alone or with a single room-mate. Such demographic change points to shifts in food consumption patterns.

With regard to the processing and home preparation of food, nutrition specialists point out that the vitamin and mineral content of foods is not solely a function of the processing that occurs after harvesting. There is a wide variability in the vitamin and mineral content depending upon the seed strain. This variability produces problems for processors and manufacturers with respect to nutrient labelling. Obviously, the methods of food preparation used influence the nutritional content of the end product.

Developments in food sources include: more attention to fish farming as a

means of increasing the protein supply; attention to krill[n] as a potential protein source for the future; focus on potatoes and corn with respect to increasing their protein quality; use of shrimp, fish, and poultry wastes in fertilizing plant products; the development of new high-yield grain varieties; the preservation of certain foods by irradiation rather than refrigeration; new uses of soy-based nutritive products; lobster-farming; and new peanut-flake food products. The foregoing list of developments in food sources is not comprehensive but merely representative of developments.

The problem of inadequate food for a large number of individuals in the world is one with both political and moral dimensions. Affluent nations, like the United States, can do something to reduce the number of people without adequate food and should do so as a moral requirement.

In the 80s and beyond, with respect to nutrition and foods, people will need to understand the following in order to be effective homemakers and intelligent consumers.

- the basic nutritional needs of individuals of both sexes at different stages in the life cycle.
- individual differences, such as those related to various health problems, which affect dietary requirements and how to obtain reliable information for dietary decisions and action.
- sources of reliable information on individual and family nutritional needs, meal planning, and preparation.
- how to meet nutritional needs through food selection, conservation, meal planning, and preparation.

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[n] Footnote: Krill are shrimplike euphasids (a form of planktonic crustacea). They feed on diatoms, and, themselves, comprise the chief food of large filter-feeding whales, as well as many other fish. It is the Antarctic species, Euphasia superba), which is thought to be plentiful enough for harvesting.

- how to evaluate meals for nutritional completeness.
- how to buy food products in a nutritionally competent manner, including use of nutritional labelling and recognition of the psychological effects of food advertising.
- how to select nutritional meals and snacks when eating out.
- how to keep food costs within the family food budget and how to cope with inflated food prices in planning nutritious meals.
- how family ethnic traditions and culture affect food choices.
- how health of family members is affected by diet.
- the responsibility for personal nutrition in relation to parenting.
- the development of new food sources.
- the nature and control of food waste.
- what individuals and families can do to contribute to the solution of the problems of inadequate food of many people in the world.

Textiles and Clothing

Selection and care of clothing and other textile products are areas of family interest and concern. Construction of clothing is undertaken by some individuals and in some families for reasons of economy, personal interest, and a feeling of accomplishment.

Developments in the field of textile science have resulted in a wide variety of man-made fibers, blends, and textile finishes for consumer choice. There are some thirteen man-made fibers on the market with at least 79 fiber trademarks, in addition to the natural fibers.

The trend to greater reliance on man-made fibers will continue. It has been projected that, by the year 2000, man-made fibers will account for 85 percent of fiber consumption, cotton for 15 percent, and wool for less than one percent.

By the year 2000, use of nonwoven fabrics will grow markedly in home furnishings products such as draperies, curtains, sheets, and pillowcases. Nonwovens are not expected to penetrate fashion apparel by that time.

There has been rather extensive research on the "comfort" of textiles and clothing. There appears to be general agreement that the movement of heat and water vapour through a garment are the most important factors in clothing comfort, and satisfactory thermal equilibrium is the most important single comfort criterion.[544] Attempts to modify the heat transfer properties of a fabric have involved three factors: (1) thickness, (2) enclosed still air, and (3) external air movements.

The perception of clothing comfort is influenced by the size and fit of clothing; physical processes, such as moisture evaporation and air movement are affected by the cut of clothes.

Insulation has an important role to play in maintaining body comfort and safety, particularly as related to outdoor clothings. Researchers have come up with two rules of thumb regarding insulation of clothing:

1. The thermal insulation of clothing is proportional to the thickness of the dead air enclosed, and
2. The efficiency of clothing (in regulating body temperature) is proportional to the diameter of the body part it covers.

For each part of the body there is an optimum thickness of insulation. Beyond this, added bulk is hindrance to movement and more trouble than the increased warmth is worth.

Most commonly used in clothing are the following insulation materials, each with its advantages and disadvantages: down, polyester, Thinsulate, pile, and wool.

Important for the consumer are care labels on clothing and other textile products required under Federal Trade Commission ruling. Also, to protect the consumer, the Federal Government has taken several steps in order to make fabrics

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[544] "Comfort Properties of Textiles", Textile Progress, Volume 9, No. 4, December, 1977, p. 1.

less flammable. Standards have been set for the flammability of carpets and rugs, mattresses and children's sleepwear. In addition, the government has published leaflets on consumer responsibilities with respect to care labeling and fabric flammability.

The textiles industry ranks tenth among the top ten energy consuming industries in the United States. The industry has achieved some important reductions in energy consumption through its own efforts.

Researchers have concluded that fiber dependent energy savings in home laundering and drying are more important than those that can be realized in dyeing and finishing of the fabric from which a garment was made. The energy demand in home laundering and drying of polyesters is markedly lower than that for cottons.[545]

Consumers may conserve energy by altering their maintenance practices, by extending the wear-life of garments where possible, and selecting garments that require less energy for maintenance.

In the 80s and beyond, people will need to know the following in relation to textiles and clothing:

- how to assess the clothing and textile product needs of the family.
- criteria for selection of clothing for individuals in terms of physical, psychological, and economic factors.
- criteria for selection of household textiles.
- how personal values relate to clothing choices.
- the self-concept and communicative values of dress and personal adornment.
- sources of reliable information on clothing and other textile product selection, use and care.
- energy conservation practices in use and care of clothing and other textile products.

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[545] Wallenberger, F. T.; A. Slack; and M. Wentz," The Effect of Fabric Composition on Energy Demand in Home Laundering," Textile Chemist and Colorist, Vol. 12, No. 7, pp. 20-23.

. safety considerations in clothing selection and care.

They may also find useful knowledges related to construction of clothing. An awareness of fiber and textile arts may lead to the development of personal leisure time interests and activities, and, in some instances, career opportunities.

Housing and Home Furnishings

"The term 'house' refers only to a physical structure, but 'home' refers to a place that provides for the growth and maintenance of a social structure--the family."[546] The home and its furnishings provide the environment for family living.

A specialist in the field of housing, James E. Montgomery, identified the following human needs which have relevance for conceiving, designing, and building homes: protection from man and nature, need for a sense of place or rootedness, need for a wholesome self concept, need to relate to others, need for social and psychological stimulation, creative or transcendental needs, and need to fulfill values.[547]

That 1,500,000 - 1,600,000 new households will be formed during the 80s is commonly projected. Also, it is expected that: home buying by singles will increase; more older people will continue living in their homes after children leave home; and the number of dwelling units that will need to be replaced because of demolition, condemnation, or conversion to new-residential uses is expected to increase.

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[546] Graff, Charlan, "Making a House a Home," Journal of Home Economics, Volume 69, No. 3, May 1977, p. 11.

[547] Montgomery, James E., Human Needs in Housing, Chapter in Human Needs in Housing, an Ecological Approach, Karen Nattrass and Bonnie Maas Morrison, ed., R. F. Publishing, Washington, D.C., 1976, pp. 49-53.

The National Association of Realtors predicts that the median price of a home will go up about 65 percent from 1980 to 1985 and reach $102,000. After 1985, the rate of increase is expected to decline. Some researchers predict that by 1985, first year expenses for a new home could use up 45 percent of the median family income.[548]

With respect to housing and health, including mental health, no simple relationship between the two has been found. However, one area in which health and quality of housing are unequivocally related is that of infectious disease. Evidence has also accumulated that more chronic types of illness, such as hypertension, may be induced by environmental factors.[549]

Studies show that people who live in high-rise apartments tend to have less social interaction with their neighbors than do those living in low-rise dwellings. Recurrent sources of difficulty in high-rise living may include "noise, waste disposal, laundry, stairways and their cleanliness, and elevators and auto parking."[550]

The convenience of room arrangement has not yet yielded to analysis as a factor determining mental health or disorder. However, the violation of privacy that occurs when family members must go through the kitchen or the bedrooms of others to reach the bathroom or when the bathroom is shared by multiple families is clear. Neglect of toilets, halls, and stairways when they are commonly shared is notorious.

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548 "The Coming Boom in Housing," Changing Times, Volume 34, No. 5, May, 1980, pp. 21-22.

549 Lemkau, Paul U., "Housing and Health", from Housing Perspectives: Individuals and Families, Second Edition, edited by Carol S. Wedin and L. Gertrude Nygren, Burgess Publishing Co., Minneapolis, 1979, pp. 145-146.

550 Downing, G. L., "Living in High Flats--Problems of Tenants and Management." American Sociological Health Journal, 83, 1963, pp. 237-243, as reported in Lemkau, op. cit., p. 154.

In many homes, the kitchen is the living room in a literal sense. As an all-purpose room, it provides many opportunities for interfering and competitive activities. It has been generally sex-stereotyped as woman's territory. In order to be alone, women are likely to go to the kitchen, with living room a second ranked choice; men choose the living room, with bed-room ranking second.[551]

People have needs both to be sociable and to withdraw from groups from time to time. A Baltimore study showed a trend toward husbands spending more time at home after resettlement in improved housing, which might be interpreted as less need to find anonymity in a crowd--a separateness not possible in the house that was left behind.[552]

Lemkau concluded that quality of housing is clearly related to the mental health of its inhabitants because it controls to a considerable extent the intimate environment in which individuals live, particularly during their formative, early years. He stated that the quality of housing "exerts its influence in a large number of ways, some of which are subject to relatively exact measurement and some of which remain, to too large an extent, more or less obvious but not measurable."[553]

A number of housing specialists have pointed out the importance of the home environment in securing the family's identity and providing a positive environment for nurturing the development of family members.

James Montgomery has identified seven concepts which appear relevant to the ways in which housing patterns affect husband-wife relationships. These include: (1) privacy, for husband and wife to disengage from the rest of the world for communication and for building an emotional life together, (2) self-concept, which

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[551] Nelson, Gail, The Home as a Sub-Typed Environment: Implications for Marital Conflict, Purdue University, paper presented at 1976 meeting, National Council on Family Relations, pp. 11-12.

[552] Lemkau, op. cit., p. 159-160.

[553] Lemkau, op. cit., p. 165.

is affected by the character of the home environment, (3) the replenishment of the couple's personal resources which comes from a satisfying home environment, (4) the psychological stimulation provided by the interest and variety of attractive surroundings, (5) the sense of place that is present when an individual feels at home with and part of his dwelling, his neighborhood, and his community, (6) relatedness, a concept relevant to the ways in which housing patterns affect husband-wife and other family relationships, and (7) creativity with respect to one's environment which is needed for the emotional well-being that enhances the quality of family relationships.[554]

Several researchers have looked at the home environemnt in relation to its support of the developmental needs of children. Anita Olds, a specialist on developmentally optimal classrooms for children with special needs, has made recommendations which are applicable to the home environment in meeting needs of all children. She states that the environment should meet the needs of children: to move, to feel comfortable, and to feel competent.[555]

Housing needs for elderly members of the family are of particular interest, given the increasing numbers of older persons in our society. The needs center around: safety, convenience, stimulation of interest and zest for life, and provision for independence. Huttman, reporting on a study of Canadian elderly who had moved to a housing development, stated that major needs in the housing unit were for: easy maintenance; a comfortable, modern unit; and a rent that the person could afford.[556]

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[554] Montgomery, James E., "Impact of Housing Patterns on Marital Interaction," The Family Coordinator, July, 1970, pp. 82-89.

[555] Olds, Anita R., "Designing Developmentally Optimal Classrooms for Children with Special Needs," Special Education and Development: Perspectives on Young Children with Special Needs, edited by Samuel J. Meisels, University Park Press, 1979, p. 92.

[556] Huttman, Elizabeth D., Housing and Social Services for the Elderly: Social Policy Trends, Praeger Publisher, New York, 1977, p. 47.

As a result of the increasing sophistication of our communication technology, a new role for the home as a center for learning is developing. This has implications for the quality of family life, including relationships and management. Family and societal values may be affected in terms of greater emphasis on education if the "home as a major center for life-long learning" is truly realized.

The same technology that makes possible "the home as learning center" also makes possible the home as work station. Much work presently done in the office could be transferred to the home.

Although there have been a number of studies related to color and human response, it appears that little is known or understood about measurable reactions to color. Studies have shown that, in general individuals are aroused by warm colors and relaxed by cool colors. Recent studies have also yielded some provocative findings on the tranquilizing effects of a specific shade of pink.[557]

Energy conservation in households is a matter of family and national concern. A major goal in consuming energy is better winterizing of homes; energy-saving installations represent capital investments that may pay for themselves in two to seven years.

Predictions for the next 20 years relative to the home environment include: home computers in 80 percent of dwellings; smaller, but attractive, residential units; more houses factory-built and engineered to save energy - with extra insulation, solar panels, and computers to monitor heating and cooling as features; more attention to bathrooms - saunas, sunlamps, and contoured tubs; much higher prices of homes; apartments afloat or underground - with "TV windows" to the world above, and more and more people working at home, away from downtown offices.[558]

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[557] Schauss, Alexander G., "Tranquilizing Effect of Color Reduces Aggressive Behavior and Potential Violence," Orthomolecular Psychiatry, Volume 8, No. 4, 1979, p. 218.

[558] "Next 20 Years," U.S. News and World Report, December 1, 1980, pp. 54-55.

With respect to home environment, in the 80s and beyond, people will need to understand the following in order to be effective homemakers and intelligent consumers:

- the meaning of "home" and "home environment"
- the qualities of a home environment which is conducive to individual and family development
- how to select a home in view of family needs, values, and resources
- the influence of housing and home design on individuals and families, including their health and relationships
- housing needs at different stages of the life cycle and with respect to family structure
- the emerging role of the home as a learning center and as a work center, and how to achieve a home learning center within family resources.
- how to select and arrange home furnishings in view of family developmental needs, values, and resources
- means of conserving energy in the home
- the legal and financial aspects of renting and buying a home
- potential of newer developments in housing, such as solar heating and underground housing for meeting family needs
- reliable sources of information on family housing and home furnishings
- what individuals and families can do to contribute to meeting the needs of all people for adequate housing.

Conclusion

An analysis of the foregoing conclusions regarding what people will need to know in the 80s and beyond to be intelligent consumers and effective homemakers reveals the following common areas of emphasis: family relationships and development of family members; the importance of individual and family values; the social responsibilities of individuals and families; the concepts and applied principles of management; analysis of family needs in material and non-material areas and how to meet these needs; consumer skills and consumer rights and responsibilities; and the importance of reliable information in meeting family needs in all areas.

Most family problems call for knowledges, understandings, abilities, skills, and attitudes related to more than one subject area in their solution. Teachers of Consumer and Homemaking Education will do well to remember that the power of home economics "lies in its integrative power, because it utilizes basic principles from many disciplines and applies them as a composite in solving the problems faced by individuals and families in day-to-day living."[559]

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[559] Lippeatt, Selma F. and Helen I. Brown, Focus and Promise of Home Economics, The MacMillan Co., New York, 1965, p. 4.